

The US Army's Center for Strategy and Force Evaluation

STUDY REPORT
CAA-SR-98-7

**KURSK OPERATION SIMULATION AND
VALIDATION EXERCISE - PHASE II
(KOSAVE II)**

SEPTEMBER 1998



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September 1998

**Prepared by
OFFICE OF THE CHIEF OF STAFF**

**US Army Concepts Analysis Agency
8120 Woodmont Avenue
Bethesda, Maryland 20814-2797**

This document was prepared as part of an internal CAA project.



KURSK OPERATION SIMULATION AND VALIDATION EXERCISE - PHASE II (KOSAVE II)

STUDY
SUMMARY
CAA-SR-98-7

THE REASON FOR PERFORMING THE STUDY was to develop and document a statistical record of the Kursk Battle from the Kursk Data Base (KDB).

THE STUDY SPONSOR was the Director, US Army Concepts Analysis Agency, 8120 Woodmont Avenue, Bethesda, MD 20814-2797.

THE STUDY OBJECTIVES were to assess results and trends from the KDB associated with the following aspects of the southern front of the Kursk Battle:

- (1) Units and combat posture status.
- (2) Personnel status and casualties.
- (3) Army weapons status and losses.
- (4) Ammunition status.
- (5) Aircraft sortie status.
- (6) Geographic unit positions and progress.

The KOSAVE II results will serve as both a baseline for comparison (of historical results) with Kursk battle simulation results in a follow-on KOSAVE III Study as well as a standalone descriptive record for historians.

THE SCOPE OF THE STUDY

(1) The campaign scenario is the southern front of the World War II (WWII) Battle of Kursk, as represented in the KDB historical data.

(2) Only results and data for combat units in the KDB are included. Noncombat support units are not covered.

THE BASIC APPROACH required:

- a. Extraction, computation, aggregation, and sorting of unit statistics from the KDB.
- b. Aggregation of assets of KDB units which were attached to higher level units into the assets of those gaining units.

c. Processing and transformation of unit locations from a WWII universal transverse mercator (UTM) coordinate system into both a Cartesian coordinate system, and a standard latitude-longitude coordinate system.

d. Application of Terrain Evaluation Module (TEM) software to plot units on a digitized map.

e. Application of Microsoft Excel spreadsheet software to sort, aggregate, summarize, plot, and tabulate statistical results.

THE PRINCIPAL FINDINGS of the KOSAVE II Study are:

(1) Soviet initial personnel in theater were 66 percent higher than German, and initial Soviet tanks in theater were double the German level. A considerably larger fraction of the German units in the Kursk campaign was engaged in combat and incurring casualties for a longer time than was the case for Soviet units. The majority of German units were continually attacking from 5 July through 12 July 1943, but all had ceased attacking by 17 July. The Soviets defended until they counter-attacked on 12 July. German progress peaked on 16 July at 46 kilometers (km) northern advance from initial 4 July positions.

(2) Daily Soviet personnel casualties and casualty rates were much higher than German. The Germans also consistently destroyed tanks and heavy antitank (AT) weapons in the Soviet force at a much higher rate than the Soviets achieved against them. However, for both personnel and tank/heavy AT weapons, high fractional exchange ratios in favor of the Germans were sporadic and not sustained during the campaign.

(3) Over the entire KDB campaign, the Soviets consumed 44 percent more tank/AT ammunition than the Germans. The Germans expended three times the Soviet artillery tonnage, two times the Soviet rocket tonnage, and tree times the Soviet small arms/AA tonnage expenditure.

(4) The Germans generated more tactical aircraft sorties than the Soviets. The roles with the most sorties were ground attack for the Germans and air-to-air for the Soviets.

(5) The Soviets always had unengaged reserves, while the Germans were always fully committed and engaged. Only 2/3 of Soviet personnel, tanks, and heavy AT weapons were, on average, in contact with the enemy, compared with averages of 92-97 percent for the Germans. This suggests that the German force was subjected to more wear and tear from the effects of nearly constant combat than was its opponent. Also, since rest and replenishment are minimal in a heavily committed force, the effectiveness and efficiency of German combat elements probably deteriorated over time relative to the Soviet force.

THE STUDY EFFORT was directed by Walter J. Bauman, Office of the Chief of Staff, US Army Concepts Analysis Agency (CAA).

COMMENTS AND SUGGESTIONS may be sent to the Director, US Army Concepts Analysis Agency, ATTN: CSCA-ZC, 8120 Woodmont Avenue, Bethesda, MD 20814-2797.

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CHAPTER 1

EXECUTIVE SUMMARY

1-1. BACKGROUND

a. The ARCAS Study. In order to assess and improve combat model credibility, the Ardennes Campaign Simulation (ARCAS) Study (Ref 1) compared a computerized combat model representation of the World War II (WWII) 1944-45 Ardennes Campaign with a data base of historical results from that campaign. This comparison of stochastic simulation results with history was used to assess the accuracy of simulation model logic and to develop algorithmic changes which improve the credibility of the stochastic simulation. The ARCAS results were a first step in the Model-Test-Model (M-T-M) paradigm of validation methodology which uses model test and evaluation results in an iterative process of successive model improvement with each successive step increasing overall validity. Another comparative historical campaign is necessary to test an improved simulation model and can also provide additional insights on simulation behavior and credibility.

b. Creation of the Kursk Data Base. Director, US Army Concepts Analysis Agency (CAA), initiated a project to collect archival historical data on the WWII battle of Kursk for use as a baseline in a follow-on effort to ARCAS. Under contract to CAA, historical data from forces in the southern front of the Battle of Kursk for actions from 5 July 1943 through 18 July 1943 were collected from military archives in Germany and Russia by The Dupuy Institute (TDI) and were reformatted into a computerized data base (in dBASE IV) designated as the Kursk Data Base (KDB). The KDB is fully documented (Ref 2, 3). This data base can be used to define elements of the southern front Kursk Battle for representation in a combat simulation.

c. Initiation of the KOSAVE Study. The Kursk Operation Simulation and Validation Exercise (KOSAVE) Study was initiated to compare simulated campaign results with history in a follow-on effort to the ARCAS Study of 1995. The final objective of the KOSAVE Study is a comparison of combat progress and events in the southern front of the WWII Kursk Campaign with results from a combat simulation of the same campaign, using inputs generated from the KDB. KOSAVE is structured into the following three phases:

- (1) Phase I - Enhancement of the KDB.
- (2) Phase II - Quantitative Description of the Kursk Battle.
- (3) Phase III - Simulation and Validation Assessment.

The results and products of Phase II comprise the study report CAA-SR-98-7 and a CD-ROM containing supplemental data. This CD-ROM (Ref 4), contains comprehensive spreadsheet and database files with daily unit personnel, ammunition, weapon, and position status from the KDB. Phase II creates an historical baseline, derived from the KDB, which can be used to initialize the combat simulation to be applied in Phase III which is a follow-on effort to Phase II.

1-2. PURPOSE AND OBJECTIVES

a. Purpose. The purpose of Phase II of the KOSAVE Study is to develop and document a statistical record of the Kursk Battle from the KDB for use as both a baseline for the Phase III simulation comparison and as a standalone descriptive record for historians

b. Objectives. Quantification of the Kursk Battle (southern front) assesses results and trends from the KDB associated with the following aspects of the southern front of the Kursk Battle:

- (1) Units and combat posture status.
- (2) Personnel status and casualties.
- (3) Army weapons status and losses.
- (4) Ammunition status.
- (5) Aircraft sortie status.
- (6) Geographic unit positions and progress.

c. Analytic Database supplement. In addition to the KOSAVE II Study Report, Phase II also generated a KOSAVE II Database Supplement on CD-ROM, containing the full KDB, as well as comprehensive Microsoft Excel 97 spreadsheets showing daily unit asset status and geographic positions.

The KOSAVE II results will serve as both a baseline for comparison (of historical results) with Kursk battle simulation results in a follow-on KOSAVE III Study as well as a standalone descriptive record for historians. Many of the statistics chosen for assessment in KOSAVE II will be used for Kursk simulation initialization as well as comparison with corresponding simulation outcome measures.

1-3. SCOPE

a. The base campaign scenario used in the combat simulation is the southern front of the WWII Battle of Kursk, as represented in the KDB historical data.

b. Only results and data for combat units in the KDB are included. Noncombat support units are not covered.

1-4. LIMITATIONS

a. Results are not expressed in terms of specific weapon types. Weapons are aggregated into categories or classes for tractability.

c. Human factors (e.g., fatigue, caution, aggressiveness) regulating the pace and intensity of battle are not quantified.

1-5. TIMEFRAME. The scenario timeframe is from 4 July 1943 through 18 July 1943.

1-6. ASSUMPTIONS

a. The Kursk Data Base accurately represents the status and structure of forces in the southern front of the actual WWII Battle of Kursk

b. The personnel casualty and system kill criteria used to categorize KDB casualty and weapon loss are sufficiently consistent to allow meaningful reporting and comparisons between combatants.

c. The use of interpolation techniques between irregular reports in historical records to enable and create a complete set of daily report records in the KDB is reasonable.

1-7. STUDY APPROACH AND METHODOLOGY. The battle quantification process required:

a. **Extraction and Computation of Unit Statistics.** Raw data were extracted from the KDB. Data were often aggregated for tractability of presentation. Data on assets were sorted according to the owning unit.

b. **Aggregation of Attachments into Primary Units.** Daily assets of KDB units below division level which were attached to higher level units were combined into the assets of those units.

c. **Processing of Unit Locations.** The coordinate system used in the KDB is a universal transverse mercator (UTM) grid based on the original WWII maps used in the actual battle. Software programs were written to process and convert these UTM locations into both a Cartesian coordinate system and a standard latitude-longitude coordinate system. For each campaign day, locations of subelements of each unit in the KDB were also combined into a single aggregate location for that unit.

d. **Application of Terrain Evaluation Module.** The unit positions were input to a US Army software tool, the Terrain Evaluation Module (TEM), which plotted them on a digitized map.

e. **Application of Excel Spreadsheets.** The asset statistics for primary combat units were transferred to Microsoft Excel 97 spreadsheets. These asset statistics were then further sorted, aggregated, and statistically summarized to produce the results shown in this report.

f. **Plotting and Tabulation of Statistics.** Microsoft Excel 97 software was used to convert the numerical data into a wide variety of chart and table formats.

f. Plotting and Tabulation of Statistics. Microsoft Excel 97 software was used to convert the numerical data into a wide variety of chart and table formats.

g. Report Documentation and Preparation. Supporting text was written to accompany, describe, and analyze the plots and tables generated from the KDB.

1-8. SUMMARY OF FINDINGS AND OBSERVATIONS. The study directive, shown in Appendix B, specifies the following essential elements of analysis (EEA), which are presented below with a summary of the applicable study results. Trends in these results are developed and assessed so that they can be compared with future (KOSAVE III) simulation outcome results.

a. What are results and trends from the KDB for units and combat posture status?

(1) Force Composition. The German force in the southern front Kursk Battle comprised eight infantry divisions, five Panzer divisions (PzD), and four Panzer Grenadier divisions (PzGrd). The Soviet force comprised 35 rifle divisions (RD), 8 tank corps (TC), 2 mechanized corps (MC), 2 airborne divisions (AbnD), and 1 detachment (Det). Average initial German unit personnel strength was 16,000 per ID and PzD, and 21,000 per PzGrd. Average initial Soviet unit personnel strength was 8,500 per RD, 9,000 per TC, 15,000 per MC, and 8,500 per AbnD.

(2) Combat Postures. The majority of the German units were continually attacking from 5 July through 12 July, but all ceased attacking by 17 July, when almost all were in prepared defenses. The vast majority of Soviet line units were in defensive postures, except on 12 July, when the Soviets counterattacked. After 12 July, the vast majority of attacking Soviet units shifted into hasty defense postures by 14 July. Maximum German offensive efforts took place on 6 July and 11 July. Maximum Soviet counteroffensive efforts took place on 12 July and 18 July.

(3) Fraction in Active Combat. A considerably larger fraction of the German line units was in active combat for a longer time than were Soviet line units.

b. What are results and trends from the KDB for army personnel status and casualties?

(1) Exposure to Combat. After 4 July, all German line units in the theater were suffering combat casualties, but on average, almost 30 percent of Soviet line units were not suffering combat casualties during this period. Over 5-18 July, an average of 92 percent of the German manpower was in contact with enemy forces, versus an average 67 percent for the Soviets.

(2) Differences in Casualties. Daily Soviet casualties were much greater than German. Relative to initial onhand, cumulative casualties amounted to 23 percent of the Soviet force and 12 percent of the German force. The largest differences were in killed in action (KIA) and captured/missing in action (CMIA). Overall, the Soviets lost nearly 5 men killed for every German killed and 24 CMIA for every German CMIA. The fraction of force wounded was similar for both combatants.

c. What are results and trends from the KDB for army weapons status and losses?

(1) Force Level Comparison. As shown in Figure 1-1, at the start of the campaign, the Germans were outnumbered at least 2:1 in tanks and at least 3:1 in heavy antitank (AT) weapons and light infantry support weapons (machineguns (MG), mortars, and light AT weapons). Initial German parity or superiority in initial inventory existed only for artillery, rockets, armored personnel carriers (APCs), and antiaircraft weapon classes. From 5-18 July, an average 98 percent of onhand German tanks and 97 percent of German heavy AT weapons were in contact with the enemy, as opposed to an average of only 64 percent of Soviet tanks and only 67 percent of Soviet heavy AT weapons.

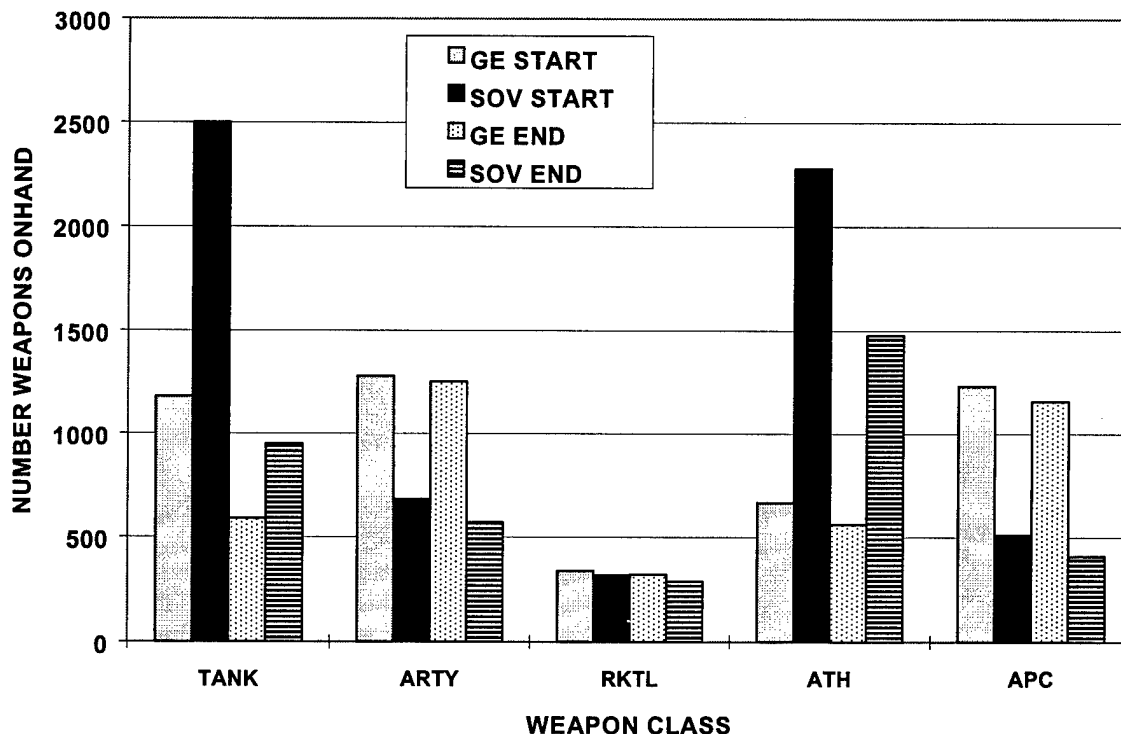


Figure 1-1. Onhand Major Weapons at Start and End

(2) Asset Losses. The vast majority of the decreases in weapon inventory occurred during the period 4-12 July.

(a) Ending (18 July) German onhand (OH) tank assets were about 50 percent of initial OH levels, but all other German weapon classes had ending OH assets close to their initial (4 July) levels.

(b) Ending Soviet tank levels were 40 percent of initial levels, and ending AT weapon and infantry support weapon (mortar, flame/MG) asset levels were about 1/3 lower than

initial. Soviet artillery, antiaircraft, and rocket launcher OH assets on 18 July were close to initial levels.

(c) There were 5.6 damaged German tanks for every destroyed German tank and 2.5 damaged German heavy AT weapons for every destroyed AT weapon. The Soviet ratios of damaged to destroyed tanks and heavy AT are both less than 1.00.

(3) Fractional Exchange Ratios. The Soviet/German FERs for tanks and heavy AT weapons, computed in favor of the Germans and based on destroyed weapons, are much greater than the comparable FERs based on [destroyed + damaged] weapons.

d. What are results and trends from the KDB for ammunition status?

(1) Onhand Inventory. Artillery and small arms/AA accounted for the majority (71 percent) of initial German inventory tonnage, while artillery and tank/AT ammo comprised most (64 percent) of the initial Soviet tonnage. German daily onhand tank/AT, artillery, rocket, and small arms AA ammunition inventory levels were always higher than Soviet.

(2) Consumption. Over the total KDB campaign, the Soviets consumed 44 percent more tank/AT ammunition than the Germans. The Germans expended three times the Soviet artillery tonnage, two times the Soviet rocket tonnage, and three times the Soviet small arms/AA tonnage expenditure. Artillery accounted for the largest portion of both forces' ammunition tonnage consumed.

e. What are results and trends from the KDB for aircraft sorties?

(1) Aircraft Roles. The Germans generated more total sorties than the Soviets. The roles with the most sorties were ground attack for the Germans and air to air for the Soviets.

(2) Air-to-ground Activity. On most days, German air-to-ground activity exceeded Soviet activity. Most German air-to-ground sorties were in the ground attack role, while the majority of Soviet air-to-ground sorties were in the (area) bombing role.

(3) Air-to-air Activity. Soviet air-to-air activity always exceeded German activity. The day-to-day variation in Soviet air-to-air activity was extremely similar to the day-to-day variation in German air-to-ground activity.

(4) Reconnaissance Activity. German air reconnaissance activity was usually higher than Soviet.

f. What are results and trends from the KDB for geographic unit positions and German progress?

(1) Cumulative Progress. Cumulative average German progress increased steadily until 16 July and then leveled off through 18 July. Average progress peaked on 16 July when

elements of 7 Panzer Division (PzD) had advanced 46 kilometers (km) north of their 4 July position.

(2) Daily Change in Progress. Average German northbound progress increased every day, except for 17 July, but daily changes after 13 July were less than 1 km. The largest single day gain in average German northbound progress was 3.3 km on 8 July.

g. What aspects of combat appeared to significantly affect historical battle outcome?

(1) Relationship Between Permanent and Temporary Personnel Losses. The effect of a large German advantage in number of "permanent" (KIA) kills was offset by near parity in "temporary" loss rates (fraction of force wounded). Since the initial Soviet force was almost double the size of the Germans, a campaign of attrition could not produce a decisive German victory with these casualty rates. The German Kursk offensive stalled and was transformed into both tactical and strategic defeat.

(2) Personnel Fatigue from Close Combat. The Germans had a considerably larger portion of their force in contact and taking casualties than did the Soviets. This suggests that the German force was subjected to more fatigue from the effects of nearly constant combat than was its opponent. Also, since rest and replenishment were minimal in such a heavily committed force, the effectiveness and efficiency of German combat elements probably deteriorated over time relative to the Soviet force.

(3) Lack of Mechanized Reserves. With an average of 97+ percent of its heavy mechanized force on the front lines, the Germans, unlike the Soviets, had no reserves to draw on.

(4) Relationship Between Permanent and Temporary Tank Losses. The Soviet:German ratio of [tanks destroyed + damaged tanks not returned from repair] is only 2.66. Although favorable to the Germans, it was not enough to achieve a decisive victory.

(5) Insufficiently Favorable Fractional Exchange Ratios. A very high FER in favor of the Germans was required to achieve annihilation, but high FERs were sporadic and not sustainable. In addition, the Soviets always had unengaged reserves, while the Germans were always fully committed and engaged.

CHAPTER 2

STUDY APPROACH AND METHODOLOGY

2-1. STUDY STRUCTURE. The KOSAVE Study comprises the following three phases:

a. Phase I – Enhancement of the Kursk Data Base. KOSAVE Phase I consists of the following enhancements to the basic KDB documentation, which were deemed necessary to facilitate ease of data use and access:

(1) Creation of Text Unit Status/Activity Narratives. Many descriptive text data fields, denoted as MEMO fields in dBASE IV, were extracted from the KDB and were reformatted in the form of unit-based narrative unit status/activity descriptions in MS-DOS text with events/items pertaining to that unit arranged in day order. Without construction of these unit narratives, the narrative information could be accessed in dBASE IV only for single information items for a single unit on a single day.

(2) Transformation of Locations into a Standard Geographic System. Locations of a limited number of reference points are given in the KDB for most line units for positions recorded at the end of each day (1800 hours). However, the coordinate system describing reference locations in the KDB is based on a UTM grid used in the original WWII maps from the actual battle. Users of the KDB will be more familiar with a latitude-longitude representation of these locations. Through use of a linear fitting equation, these locations have been converted to a latitude-longitude format and arranged in the form of MS-DOS text lists which show the degrees latitude and longitude of each KDB reference point on each day. Lists were also constructed showing average KDB unit positions, in degrees latitude and longitude, on each day.

The product of Phase I consists of the full KDB, its supporting documentation, and the above enhancements. These data were incorporated into the KOSAVE II Data Base Supplement on CD-ROM issued in conjunction with the KOSAVE II Study Report CAA-SR-98-7.

b. Phase II - Quantitative Description of the Kursk Battle. The purpose of Phase II, denoted as KOSAVE II, is to summarize data from the KDB and create a "campaign portrait" document describing the Kursk Battle (southern front). This campaign portrait serves both as a baseline for comparison with the theater campaign simulation in Phase III and as a standalone historical description of the battle. The documentation of these historical statistics serves as a valuable information resource for military analysts and historians because it includes new information and insights on one of the greatest battles of 20th century war. The product of Phase II is a study report. The results and product of Phase II comprise the Study Report, CAA-SR-98-7.

c. Phase III – Simulation and Validation Assessment. The purpose of Phase III of the KOSAVE Study, denoted as KOSAVE III, is to use the KDB to initialize and execute a stochastic simulation of the southern front of the Kursk Battle and to determine how, where, and why patterns of simulated combat are similar to, or differ from, patterns reflected in the historical KDB records. If an outcome trend in the simulation differs substantively from the historic outcome, then if a rationale for that historical trend can be discerned, justified, and quantified, it

2-2. HISTORICAL SCOPE

a. Operation Citadel. In the spring of 1943, the Russo-German front was dominated by a salient located to the north of Kharkov, to the south of Orel, and centered on the city of Kursk. The Kursk Salient, depicted in Figure 2-1, had a frontage of 250 miles and was 70 miles across at its base. In March 1943, Hitler initiated planning for an offensive operation, called "Citadel," which involved a two-front attack on the Kursk Salient in a classic pincer operation. Operation Citadel was launched on 5 July 1943. Using massive armor attacks, General Model's 9th Army attacked on the northern front of the salient, while General Hoth's 4th Panzer Army attacked from the southern front, with an objective of destroying Soviet forces and eliminating the salient by linking up in the area around the city of Kursk. However, because of frequent German planning delays, the Soviets had time to prepare and fortify extensive defense lines, which contributed to the German defeat in this campaign. Model's attack from the north gained approximately 6 miles of ground before being brought to a halt in the first 4 days. Thereafter, the German attack on the northern front was stalled. However, Hoth's attack from the south had more success and is the conflict of far greater interest to historians.

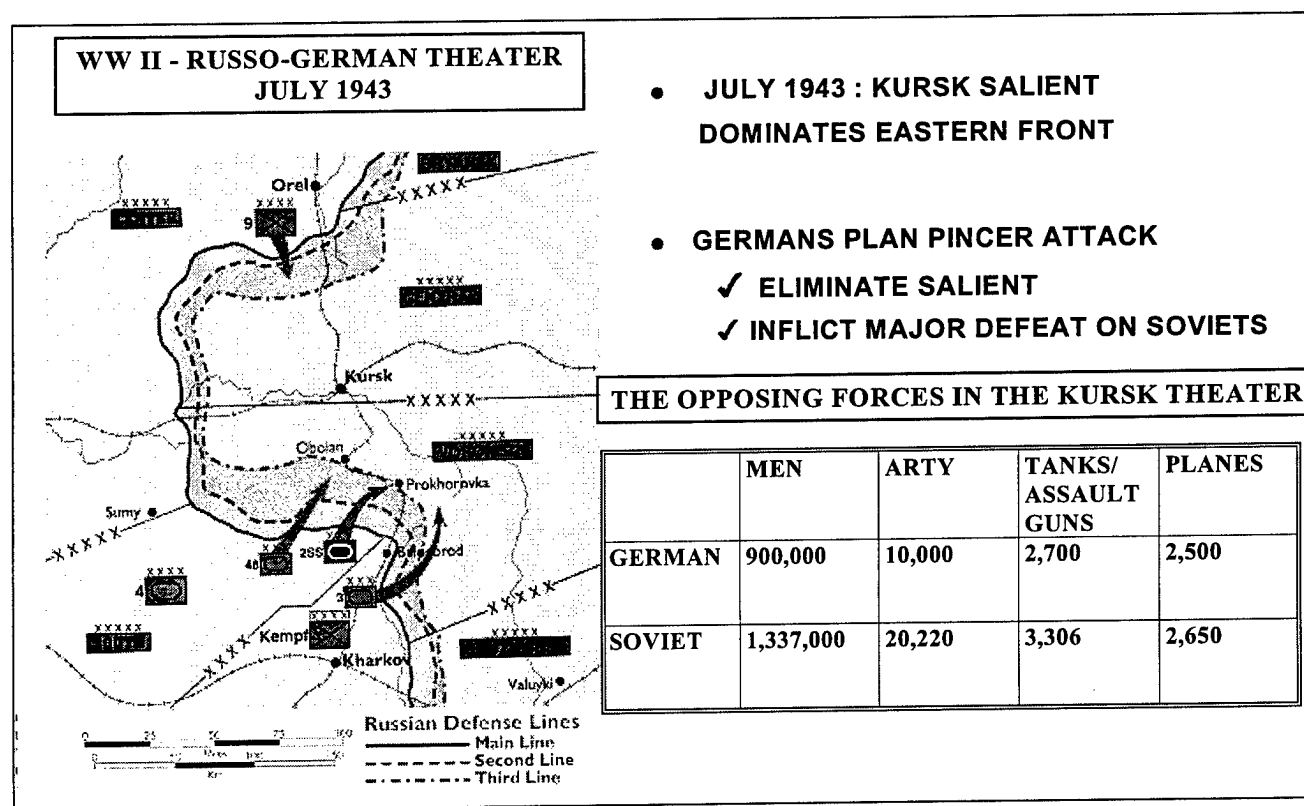


Figure 2-1. Geohistorical Scope of the Kursk Campaign

b. The Southern Front Battle. Figure 2-2 briefly summarizes the activity on the southern front of the Kursk Salient. After modest initial gains of a few miles during the first 48 hours of the offensive, 4th Panzer Army surged forward on 7 July, creating great damage and alarm among Soviet defenders. In spite of heavy losses in men and armor, Soviet reinforcements were sufficient to restrict German gains to 25 miles by 12 July. A German breakthrough attempt on 12 July resulted in a major close quarters tank battle near the town of Prokhorovka. Unable to gain a decisive victory, and stopped by Soviet reinforcements and counterattacks, the Germans drew back into defensive postures after this battle. Hitler cancelled Citadel on 13 July, and further attacks were limited in scope. The Soviets began counterattacks on the southern front on 12 July but shifted primarily to defense postures by 14 July. The Soviet counteroffensive was resumed on the southern front on 18 July and regained all ground lost there by 23 July.

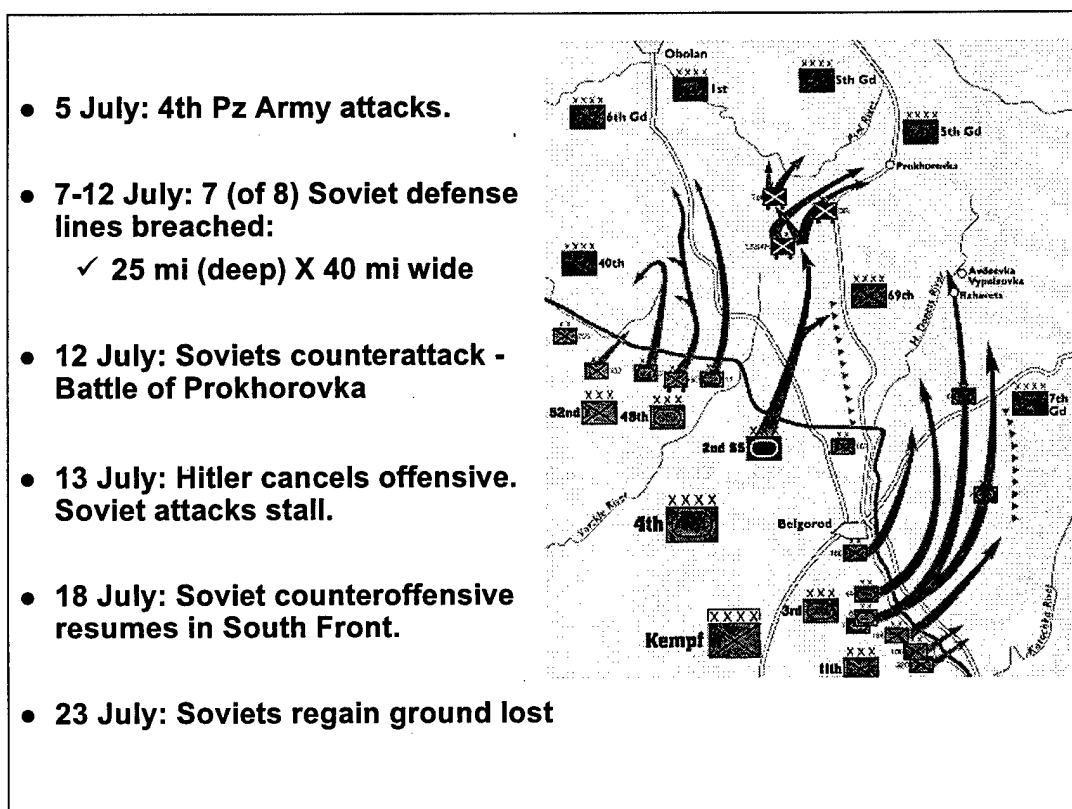


Figure 2-2. The Southern Front of the Kursk Battle

2-3. STRUCTURE OF THE KDB. The KDB tracks data for units on a daily basis. The structure of the KDB, and types of data contained within it, is summarized in Table 2-1.

Table 2-1. KDB Structure

Data file	Type data
Unit Data Base	Personnel, ammo, fuel, and supply status by unit
Unit Inventory Data Base	Weapon/vehicle status by unit
Unit Location Data Base	Unit locations and activities
Air Data Base	Daily air sorties and activity
TO&E Data Base	Authorized strengths by unit type
Weapons Data Base	Weapon and vehicle characteristics
Reference Data Base	Sources of KDB data
Bibliography Data Base	Supplemental document titles about Kursk campaign

The KDB includes the following eight files:

a. Unit Data Base. The Unit Data Base contains personnel, medical, and logistical statistics on ground combat units of Soviet and German forces that were in, or supported, the campaign theater of operations in the southern front of the Kursk Battle. This information includes:

(1) Number of personnel casualties. Casualty type categories include KIA, wounded in action (WIA), CMIA, and disease and nonbattle injury (DNBI). The numbers of WIA and DNBI are also noted.

(2) Number of onhand, replacement, and returning personnel.

(3) Amounts of ammunition, fuel, and other supplies onhand, received, and consumed.

b. Unit Inventory Data Base. The Unit Inventory Data Base contains data on equipment (weapons and vehicles) strengths and losses of Soviet and German combat units. Information on unit weapon/vehicle status recorded for each day during the course of the campaign includes the onhand amount, the number damaged, the number destroyed in combat, the number abandoned, number of replacements, number in repair, and the number returning from repair.

c. Unit Location Data Base. The Unit Location Data Base records information on the location, during the campaign, of Soviet and German combat units. It also provides information on the activities, operations, and missions of ground combat units.

d. Air Data Base. The Air Data Base contains information on Soviet and German tactical air sorties flown during the campaign. Information, recorded for each day, includes the number of sorties for each type of sortie and aircraft.

e. Table of Organization and Equipment (TO&E) Data Base. The TO&E Data Base shows data from official TO&E lists for units and unit types in the KDB. Authorized personnel, equipment, and logistic strengths are provided for each unit.

f. Weapons Data Base. The Weapons Data Base records equipment (weapons and vehicles) characteristics. Weapon system characteristics include movement rate, ammo weight carried, basic ammunition load, maximum effective range, rate of fire, and sensor types and ranges.

g. Reference Data Base. The Reference Data Base records the sources of the data and information in the other data base files.

h. Bibliography Data Base. The Bibliography Data Base lists additional documents describing aspects of the personnel, systems, and/or events of the Kursk Campaign.

2-4. METHODOLOGY. Methods and tasks sequencing applied to prepare the tables and figures in this report are schematically shown in Figure 2-3.

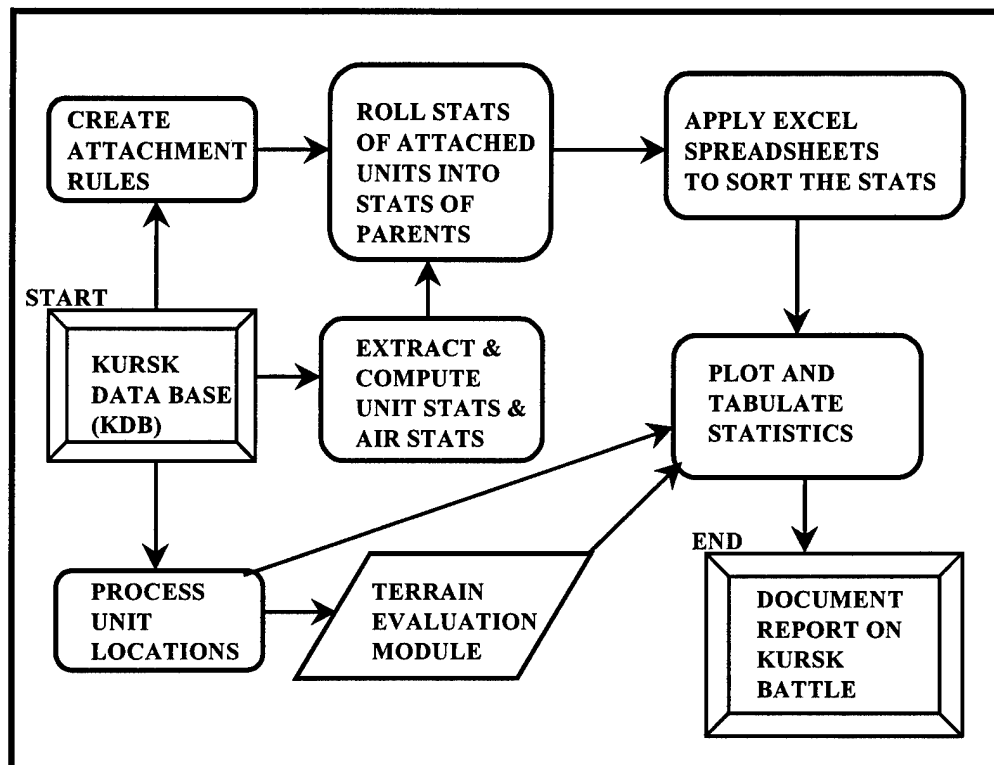


Figure 2-3. Methodology for Statistical Quantification of the KDB

Raw data extracted from the KDB often had to be transformed and/or aggregated before it was sorted and summed. The tasks shown in Figure 2-3 are:

a. Extraction and Computation of Unit Statistics. For personnel, ammunition, and air data, unit statistics consisted of data on unit assets and status which were extracted for each KDB unit. Extracted KDB weapon data, however, were aggregated into weapon classes. Unit weapon statistics were computed for each weapon class as well as each KDB weapon type.

b. Creation of Attachment Rules. The KDB unit data file has attachment lists which identify any units which were attached to each of 75 individual German combat units and 191 individual Soviet combat units in the KDB on each day. Units vary in echelon from Front/army group down to company level. Using these attachment lists, each combatant's full unit list was compressed into a list of primary KDB combat units, usually at division level or higher, which had other KDB units below division level attached to them. In addition, each force has, on each campaign day, a number of small KDB combat units which operated independently and were not attached to other units. The rules defining the composition of the primary combat units of each force, in terms of its attached subunits, were explicitly recorded so that each primary unit's computed assets on a day could include the combined total of all of its attached subunits on that day.

c. Aggregation of Attachments into Primary Units. Assets in KDB units below division level which were attached to primary KDB combat units are not explicitly tracked. Instead, their assets are included in the computed assets for the primary combat units to which they were attached. On each day, each primary KDB combat unit has a specified (by the attachment rules) set of attached subunits. Each primary combat unit's assets on each day is computed as the combined total of all of its attached subunits on that day. By this means, the asset statistics of the 75 KDB German units and the 191 KDB Soviet units in the full KDB unit list are expressed in terms of 24 primary German combat units, 67 primary Soviet combat units, and a category denoted as "nondivisional." Combat units which were not attached to anything in the KDB have their asset statistics totaled into the "nondivisional" unit category, through which they are tracked. The KDB provides locations only for the primary combat units of each force.

d. Processing of Unit Locations. Locations of a limited number of reference points are given in the KDB for most primary combat line units for positions recorded at the end of each day (1800 hours). However, the coordinate system employed is a UTM grid based on the original WWII maps used in the actual battle. Computer programs were written to process and convert these UTM locations into two different types of coordinate systems:

- (1) A Cartesian coordinate system, expressed in terms of simple (x,y) coordinates.
- (2) A latitude-longitude representation, expressed only in degrees (to the nearest .001 degree). A linear fitting equation was used to convert each KDB point location, expressed as an (x,y) coordinate, into a latitude-longitude location.

Unit locations in the KDB are represented as a set of (up to 18) reference point locations associated with that unit. A single unit position/location was defined and computed as the arithmetic average of all of its reference point locations, excluding the unit headquarters (which usually was positioned to the rear of the other unit points).

e. Application of Terrain Evaluation Module. The unit positions were input to a US Army software tool denoted as the Terrain Evaluation Module (TEM). The TEM plotted the positions of the inputs on a (contemporary) digitized map of the geographic area represented in the KDB.

f. Application of Excel Spreadsheets. The asset statistics for the primary combat units, which implicitly include assets of attached units, were transferred to Microsoft Excel 97 spreadsheets. These asset statistics were then further sorted, aggregated, and statistically summarized, using the Excel 97 software, to produce the numerical results shown herein.

g. Plotting and Tabulation of Statistics. Microsoft Excel 97 software was used to convert the numerical data into chart and table formats for inclusion in documentation. Selected Excel 97 scatter plots of unit positions were also integrated with digitized map plot output from TEM to produce special geographic representations, denoted herein as "geographs," which enable a spatial, as well as quantitative, view of losses over units on a day.

h. Report Documentation and Preparation. Supporting text was written to accompany, describe, and analyze the plots and tables generated from the KDB.

CHAPTER 3

UNITS AND COMBAT POSTURE STATUS

3-1. COMBAT UNITS REPRESENTED IN THE KDB. The statistics of this report include only data from combat units represented in the KDB. Support units in the KDB, such as bridging and logistics units, are excluded. The full German and Soviet KDB combat unit lists are shown in Appendix D. Since many small units were attached to higher-level (echelon) units, assets of units below division level are included in the computed assets for the higher-level combat units, denoted as primary combat units, to which they were attached. These primary combat units consist of both headquarters (HQ) units and line combat units. Only these primary combat units have locations recorded in the KDB. The German force comprises 24 primary combat units, while there are 67 in the Soviet force.

a. German Units. Table 3-1 lists the 24 primary German combat units represented in the KDB. The leftmost column of the table shows the type of unit. The Unit ID column shows the unit name as recorded in the KDB. The rightmost column gives a short form of this unit name for use in maps within this report. There are 7 German headquarters units and 17 line units. The 17 line units are further partitioned into 8 infantry divisions (IDs), 5 PzDs, and 4 Panzer Grenadier divisions. Most of the units in the full German combat unit list, shown in Appendix D, were attached to one of these primary German units. Average initial German unit personnel strength was around 16,000 per ID, 16,000 per Pzd, and 21,000 per PzGrd.

Table 3-1. Primary German Units in the KDB

Unit type	Unit ID	Short unit ID
HQ	3d Pz Corps	3PZC
HQ	48th Pz Corps	48PZC
HQ	4th Panzer Army	4PZA
HQ	52d Corps	52C
HQ	Corps Raus	RAUS
HQ	II SS Pz Corps	IISS
HQ	Prov Army Kempf	KEMPF
ID	106th ID	106
ID	167th ID	167
ID	168th ID	168
ID	198th ID	198
ID	255th ID	255
ID	320th ID	320
ID	332d ID	332
ID	57th ID	57
PzD	11th PzD	11PZ
PzD	19th PzD	19PZ
PzD	3d PzD	3PZ
PzD	6th PzD	6PZ
PzD	7th PzD	7PZ
PzGrD	DR SS PzGrD (Das Reich)	DRSS
PzGrD	GD PzGrD (Grossdeutschland)	GDPZ
PzGrD	LSSAH PzGrD (Leibstandarte Adolph Hitler)	LSSAH
PzGrD	T SS PzGrD (Totenkopf SS)	TSS

b. Soviet Units. Table 3-2 lists the 67 primary Soviet combat units represented in the KDB. The leftmost column of the table shows the type of unit. The Unit ID column gives the unit name as recorded in the KDB. The rightmost column gives a short form of this unit name for use in tables and maps within this report. There are 19 Soviet headquarter units and 48 line units. The 48 line units are further partitioned into 35 rifle divisions, 8 tank corps, 2 mechanized corps, 2 airborne divisions, and 1 detachment. Most of the units in the full Soviet combat unit list, shown in Appendix D, are attached to one of these primary Soviet units. There are about 20 small units, which always operated independent of divisions, which are not listed in Table 3-2. Average initial Soviet unit personnel strength was around 8,500 per RD, 9,000 per TC, 15,000 per MC, and 8,500 per AbnD.

Table 3-2. Primary Soviet Units in the KDB
(page 1 of 2 pages)

Unit type	Unit ID	Short unit ID
AbnD	6th Gds AbnD	6AB
AbnD	9th Gds AbnD	9AB
Det	Trufanovs Detachment	TRU
HQ	1st Tank Army	1T
HQ	22d Gds RC	22G
HQ	23d Gds RC	23G
HQ	24th Gds RC	24G
HQ	25th Gds RC	25G
HQ	32d Gds RC	32G
HQ	33d Gds RC	33G
HQ	35th Gds RC	35G
HQ	40th Army	40A
HQ	47th RC	47R
HQ	48th RC	48R
HQ	49th RC	49R
HQ	52d RC	52R
HQ	5th Gds Army	5G
HQ	5th Gds Tank Army	5GT
HQ	69th Army	69A
HQ	6th Gds Army	6G
HQ	7th Gds Army	7G
HQ	Voronezh Front	VF
MC	3d Mech Corps	3M
MC	5th Gds MC	5M
RD	100th RD	100
RD	107th RD	107
RD	111th RD	111
RD	13th Gds RD	13
RD	15th Gds RD	15

Table 3-2. Primary Soviet Units in the KDB
(page 2 of 2 pages)

Unit type	Unit ID	Short unit ID
RD	161st RD	161
RD	183d RD	183
RD	184th RD	184
RD	204th RD	204
RD	206th RD	206
RD	213th RD	213
RD	219th RD	219
RD	237th RD	237
RD	270th RD	270
RD	305th RD	305
RD	309th RD	309
RD	36th Gds RD	36
RD	375th RD	375
RD	42d Gds RD	42
RD	51st Gds RD	51
RD	52d Gds RD	52
RD	66th Gds RD	66
RD	67th Gds RD	67
RD	71st Gds RD	71
RD	72d Gds RD	72
RD	73d Gds RD	73
RD	78th Gds RD	78
RD	81st Gds RD	81
RD	89th Gds RD	89
RD	90th Gds RD	90
RD	92d Gds RD	92
RD	93d Gds RD	93
RD	94th Gds RD	94
RD	95th Gds RD	95
RD	97th Gds RD	97
TC	10th TC	10T
TC	18th TC	18T
TC	29th TC	29T
TC	2d Gds TC	2GT
TC	2d TC	2T
TC	31st TC	31T
TC	5th Gds TC	5GT
TC	6th TC	6T

3-2. UNIT ORDER OF BATTLE

a. German Order of Battle. Table 3-3 shows, in tabular form, the unit order of battle for the German combat forces in the KDB on 4 July 1943. All primary units in Table 3-1 are listed, except for 198th ID, which is not recorded in the KDB until 8 July, when it is attached to Corps Raus.

Table 3-3. German Unit Order of Battle on 4 July 1943

Higher HQ parent	Subordinate units
3d Pz Corps	168th ID 19th PzD 6th PzD 7th PzD
48th PzCorps	167th ID 332d ID 11th PzD 3d PzD GD PzGrD
52d Corps	255th ID 57th ID
Corps Raus	106th ID 320th ID
II SS Pz Corps	DR SS PzGrD LSSAH PzGrD T SS PzGrD
4th Panzer Army	48th Pz Corps 52d Corps II SS Pz Corps
Provisional Army Kempf	3d Pz Corps Corps Raus
AG (Army Group) South	4th Panzer Army Provisional Army Kempf

b. Soviet Order of Battle. Table 3-4 shows, in tabular form, the unit order of battle for the Russian combat forces in the KDB on 4 July 1943. All 67 primary units in Table 3-2 are listed in the table.

Table 3-4. Soviet Unit Order of Battle on 4 July 1943
(page 1 of 2 pages)

Higher HQ parent	Subordinate units
1st Tank Army	3d Mech Corps 31st TC 6th TC
22d Gds RC	67th Gds RD 71st Gds RD 90th Gds RD
23d Gds RC	375th RD 51st Gds RD 52d Gds RD
24th Gds RC	15th Gds RD 36th Gds RD 72d Gds RD
25th Gds RC	73d Gds RD 78th Gds RD 81st Gds RD
32d Gds RC	6th Gds AbnD 13th Gds RD 66th Gds RD
33d Gds RC	9th Gds AbnD 95th Gds RD 97th Gds RD
35th Gds RC	92d Gds RD 93d Gds RD 94th Gds RD
38th Army	204th RD
40th Army	47th RC 52d RC 184th RD
47th RC	161st RD 206th RD 237th RD
48th RC	107th RD 183d RD 305th RD
49th RC	111th RD 270th RD
52d RC	100th RD 219th RD 309th RD

Table 3-4. Soviet Unit Order of Battle on 4 July 1943
(page 2 of 2 pages)

Higher HQ parent	Subordinate units
5th Gds Army	32d Gds RC 33d Gds RC 42d Gds RD 10th TC
5th Gds TA	Trufanovs Detachment 5th Gds MC 29th TC
69th Army	48th RC 49th RC
6th Gds Army	22d Gds RC 23d Gds RC 89th Gds RD
7th Gds Army	24th Gds RC 25th Gds RC 213th RD
RVGK Reserve	18th TC
Southwest Front	2d TC
STAVKA	Voronezh Front
Steppe Front	5th Gds Army 5th Gds Tank Army
Voronezh Front	1st Tank Army 35th Gds RC 40th Army 69th Army 6th Gds Army 7th Gds Army 2d Gds TC 5th Gds TC

c. Opposing Force Strengths. Chapter 4 of this reports shows that initial Soviet personnel in theater were almost double the German total. Chapter 5 shows that, in terms of initial strength in theater, the Germans were outnumbered at least 2:1 in tanks, and at least 3:1 in heavy AT weapons and light infantry support weapons. Initial German parity or superiority in theater strength existed only for artillery, rockets, APCs, and antiaircraft weapons.

3-3. UNIT ACTIVITY AND COMBAT POSTURES. The KDB records the daily contact status and combat posture of each of the 17 German line units and each of the 48 Soviet line units described in paragraph 3-1. Units in contact with the enemy are further partitioned into those in active contact (fighting) and those that are in contact but not in active combat. Unit combat postures include attack, delay, hasty defense, prepared defense, and other (usually denoting reserve/transit status). Appendix E shows the daily contact and combat posture for each

line unit of each force. Summary charts from data in these appendices are presented in this chapter.

a. Unit Activity. Figure 3-1 shows the daily number of line units in each force which were in contact with the enemy and the number which were in attack posture. The x-axis scale shows calendar days from 4 July through 18 July. The peak German attacks were on 6 July and 11 July. The Soviet counterattacks are apparent on 12 July and 18 July. All German units ceased attacking by 17 July. Figure 3-2 shows the number of each force's inactive line units in terms of the number which were out of contact and the number which were in contact but not actively fighting. The figure shows that less than 30 percent of the German line units were inactive on each of 12 days, while at least 50 percent of Soviet units are recorded as inactive on each of 10 days. These results show that a considerably larger fraction of the German line units were in active combat for a longer time than were Soviet line units.

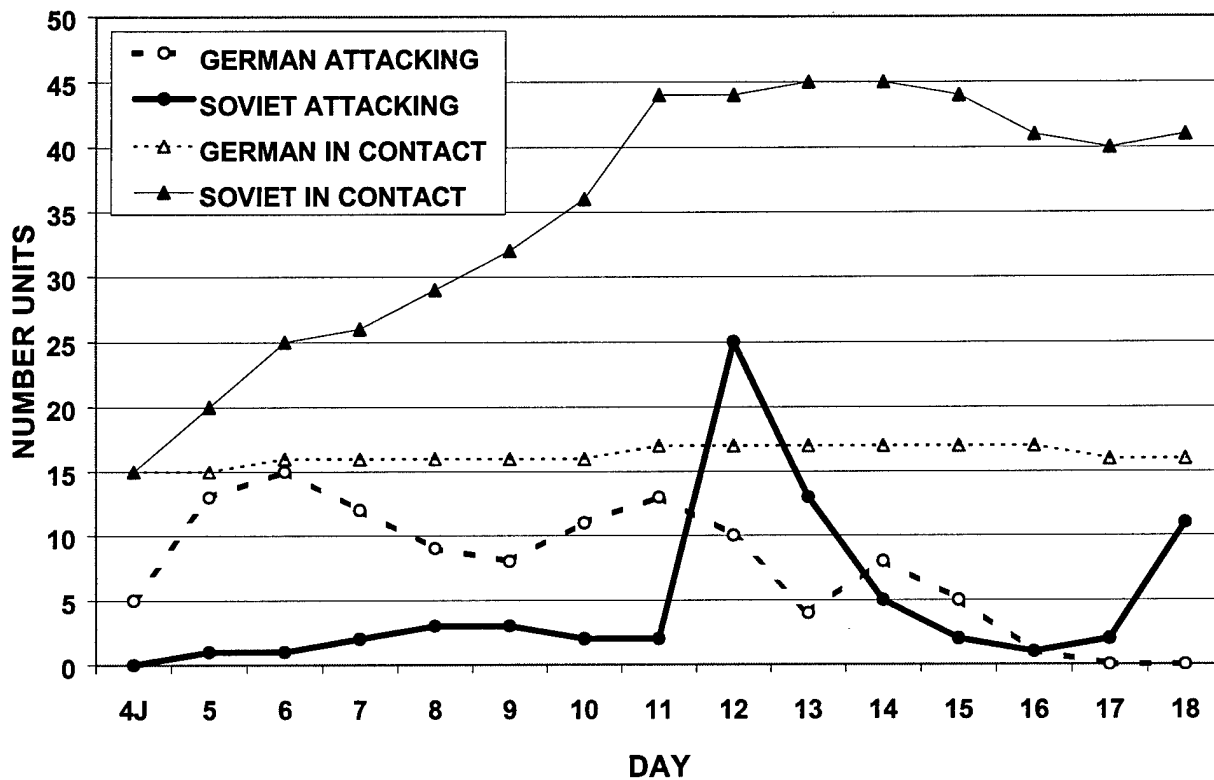


Figure 3-1. Line Units in Contact/Attacking

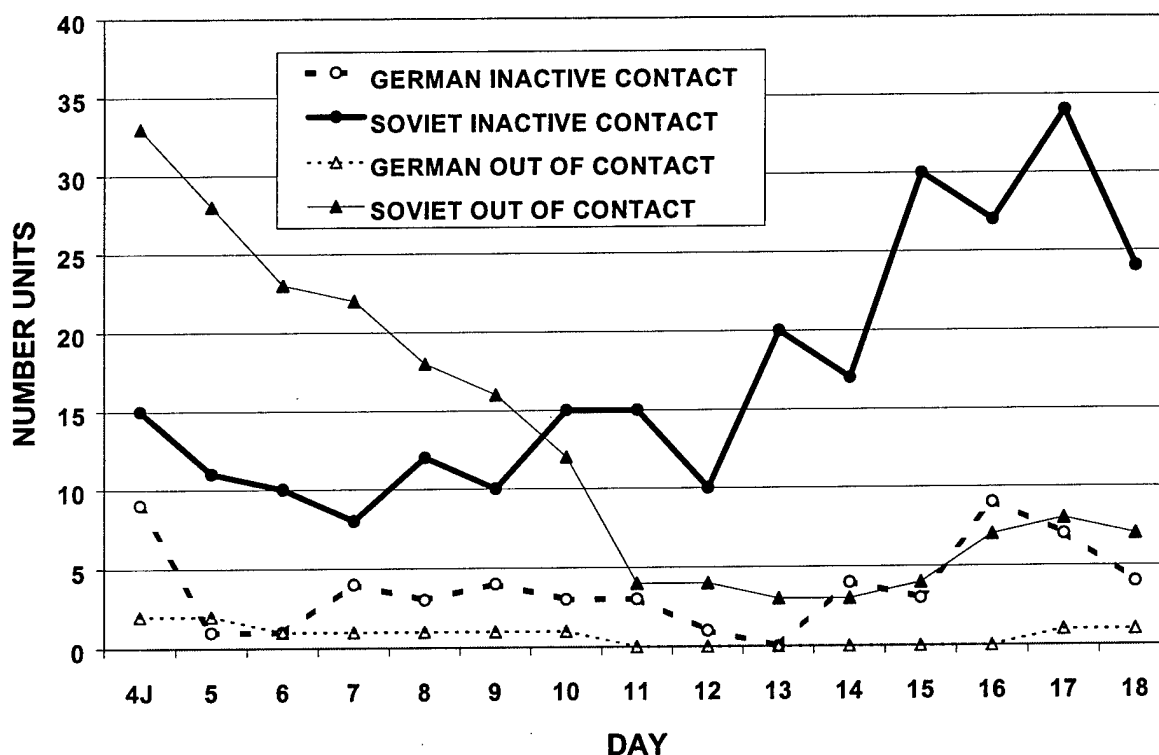


Figure 3-2. Inactive Line Units in Contact/Out of Contact

b. Unit Combat Posture. For each day, Figure 3-3 partitions the 17 German line units into five combat postures, as recorded in the KDB. Figure 3-4 partitions the 48 Soviet line units according to combat posture. The listed reserve/transit posture is actually recorded as "other" in the KDB. The German 198th ID is not recorded in the KDB theater until 8 July. The majority of the German units were continually attacking from 5 July through 12 July, but almost all were in prepared defenses by 17 July. The vast majority of Soviet line units were in defensive postures on all days except 12 July, when the Soviets counterattacked. The strength of this counterattack is evident in the jump from 2 to 25 attacking Soviet units on 12 July. The temporary success of the Germans in meeting the 12 July Soviet counterattack is evident in the shift of the vast majority of attacking Soviet units into hasty defense postures by 14 July. History attributes the shift of German units from attack into defensive postures after 14 July to Hitler's cancellation of Operation Citadel. The number of German units in prepared defenses rose steadily from 4 on 11 July to 14 on 17 July. The number of Soviet units in prepared defenses also rose steadily from 6 on 13 July to 16 on 18 July. These KDB posture results indicate that the maximum German offensive efforts were on 6 July and 11 July, while maximum Soviet counteroffensive efforts were on 12 July and 18 July.

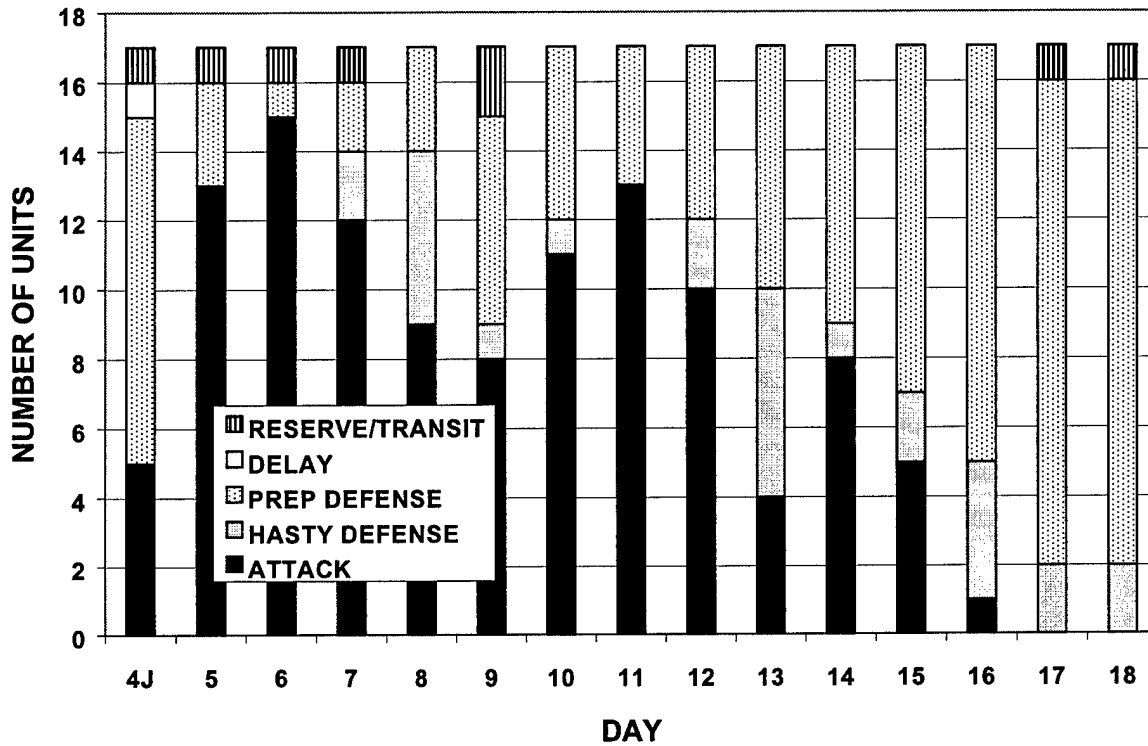


Figure 3-3. Daily Number of German Units in each Combat Posture

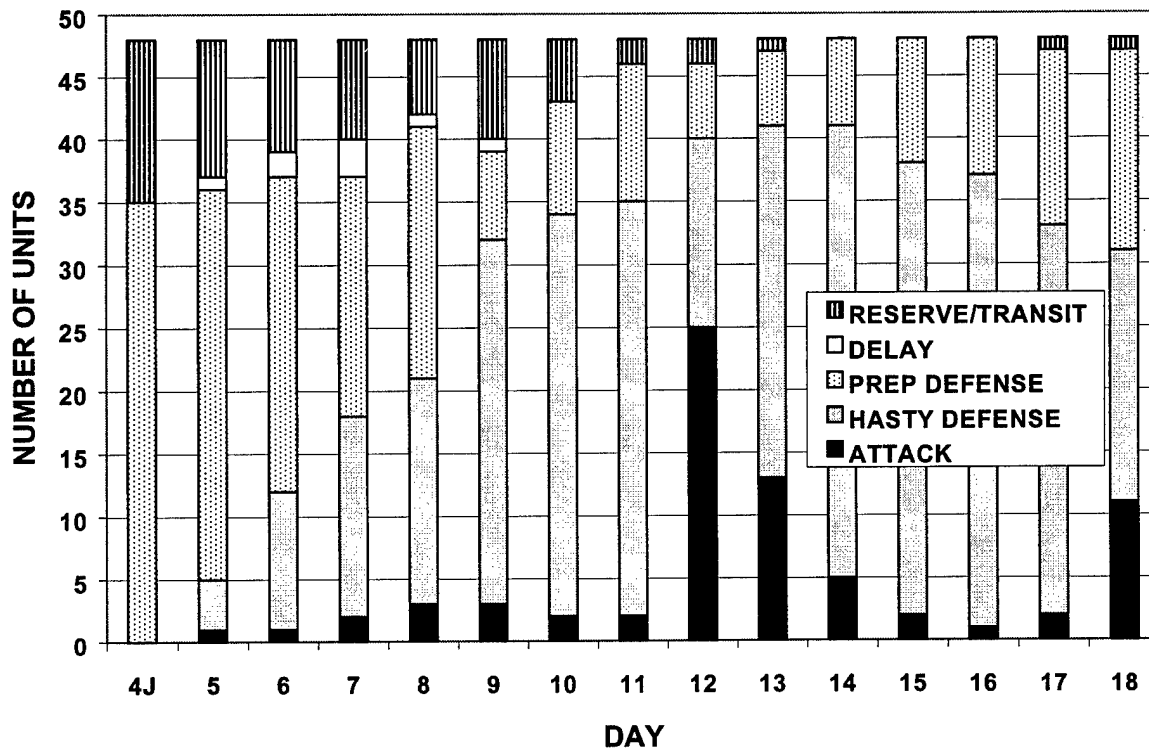


Figure 3-4. Daily Number of Soviet Units in each Combat Posture

3-4. INITIAL POSITIONS OF THE GERMAN ATTACK. Figure 3-5 shows a digitized map (circa 1993) of the area including the southern front of the Kursk Battle. The US Army's TEM software was used to overlay the positions of German and Soviet line units onto the map. These positions are marked by standard US Army unit symbols for infantry, armored, and mechanized units. Unit symbols for Soviet units on the map have a double line border. All German unit symbols have a single line border. The associated unit name is at the lower left of each unit symbol. Unit names are from the "Short Unit ID" column entries in Tables 3-1 and 3-2. All line units recorded in the KDB in the map area on 4 July are plotted on the map. Some line units are not visible because they are off-map. Headquarters units (unit type HQ in Tables 3-1 and 3-2) are not plotted on the map. The composition of the German corps is indicated. Arrows have been drawn which approximately indicate the actual path of the German attacks from 5 July through 12 July 1943.

3-5. SUMMARY OBSERVATIONS

a. The German force in the KDB consisted of 7 German headquarters units and 17 line units. The 17 line units are further partitioned into 8 infantry divisions, 5 Panzer divisions and 4 Panzer Grenadier divisions. The Soviet force consisted of 19 Soviet headquarters units and 48 line units. The 48 line units are further partitioned into 35 rifle divisions, 8 tank corps, 2 mechanized corps, 2 airborne divisions, and 1 detachment.

b. Unit activity and posture status recorded in the KDB shows that the majority of the German units were continually attacking from 5 July through 12 July but that all ceased attacking by 17 July, when almost all were in prepared defenses. The maximum German offensive efforts were on 6 July and 11 July.

c. The maximum Soviet counteroffensive efforts were on 12 July and 18 July in the KDB. The vast majority of Soviet line units were in defensive postures on all days except 12 July, when they counterattacked. After the 12 July counterattack, the temporary success of the Germans in meeting this counteroffensive is reflected in the vast majority of attacking Soviet units shifting into hasty defense postures by 14 July.

d. A considerably larger fraction of the German line units was engaged in combat and incurring casualties for a longer time than was the case for Soviet line units. More than half of Soviet line units were not in active combat from 4-10 July and 15-18 July.

CHAPTER 4

PERSONNEL STATISTICS

4-1. INTRODUCTION. This chapter presents statistics on Soviet and German personnel strength and casualties during the campaign. The casualties are grouped into four loss types: KIA, WIA, CMIA, and DNBI. Personnel statistics for each unit are listed in Appendix F (German units) and Appendix G (Soviet units). Comparison of casualty rates for opposing forces is also presented in terms of a measure denoted as the fractional exchange ratio.

4-2. ONHAND PERSONNEL. Figure 4-1 shows daily onhand personnel in combat units for both forces in the southern front Kursk Battle, as represented in the KDB. The onhand total includes all personnel attached to all combat units (line units and HQ units through Army), both committed and uncommitted. With one exception, all HQ units and line combat units above brigade are represented in the KDB on each day from 4 July through 18 July. The exception is the German 198th ID, which first appears in the KDB records on 8 July 1943, when it comes under control of Corps Raus. Figure 4-2 shows the number of onhand personnel in HQ units and in divisional line units on 4 July. The German HQ units represented are corps and army level. The Soviet HQ unit types are armies, rifle corps, and the Voronezh Front. Figure 4-2 excludes a very small number of German personnel which were not attached to any unit, as well as 24,000 Soviet personnel operating independently in a number of nondivisional combat units. These nondivisional forces are included in Figure 4-1. Only 8 percent of German personnel were in HQ units, as compared to 12 percent of Soviet personnel.

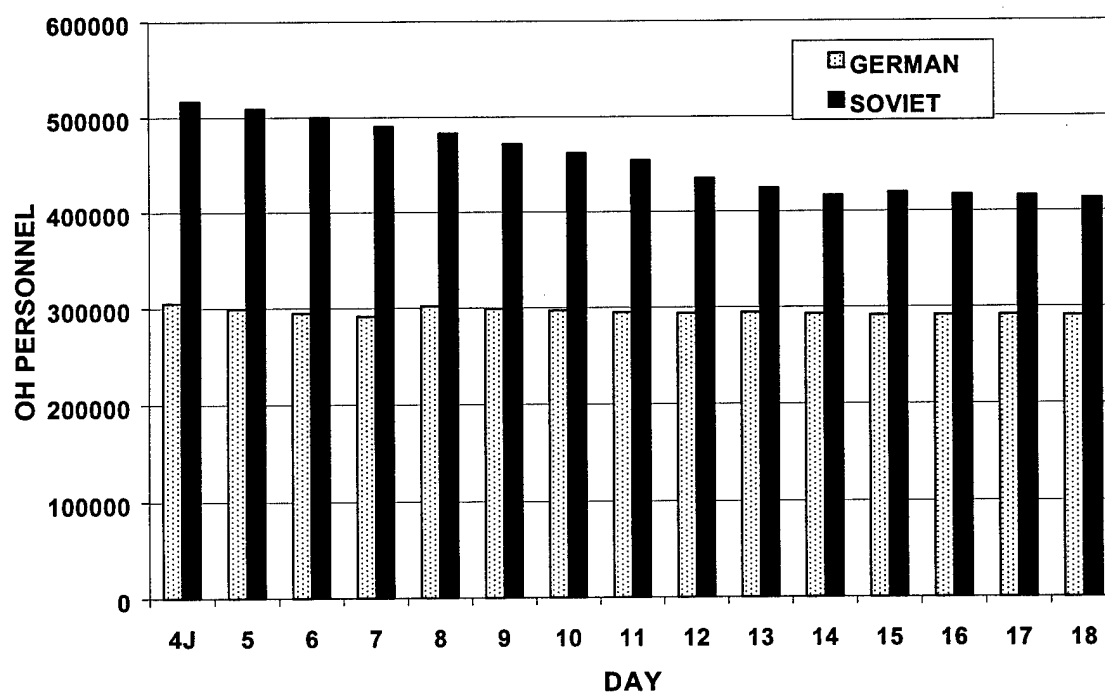


Figure 4-1. Daily Total Personnel Onhand on 4 July 1943

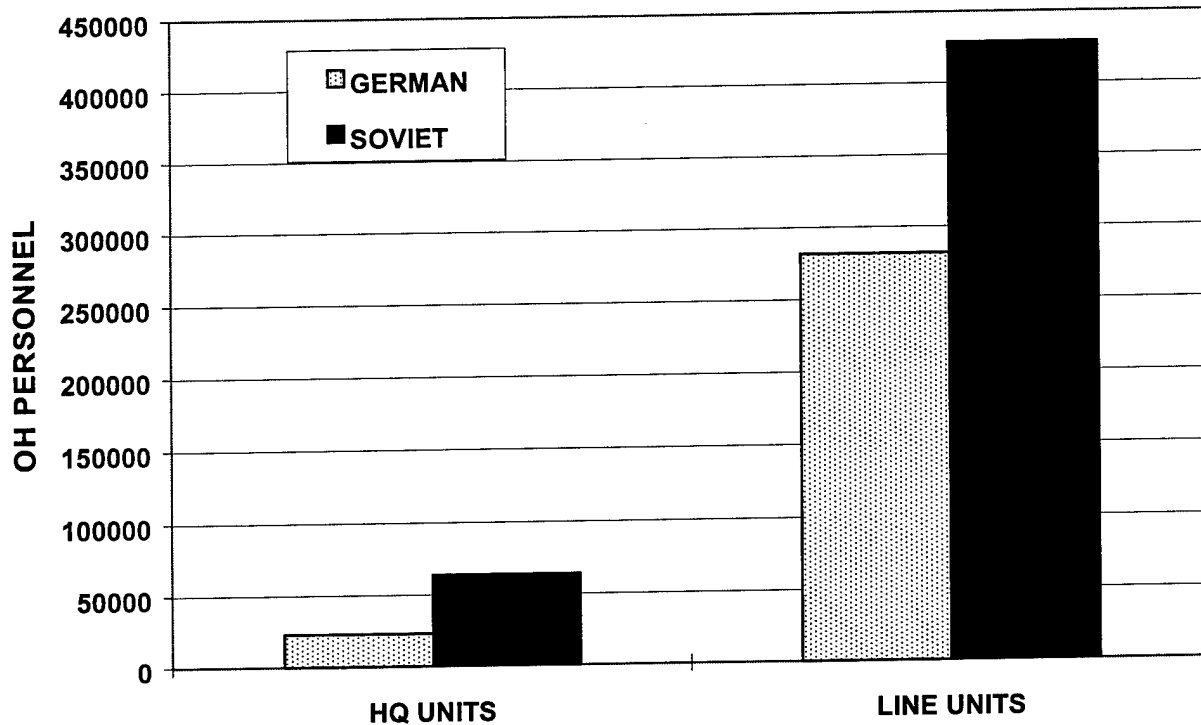


Figure 4-2. 4 July Onhand Personnel in HQ and in Line Units

4-3. PERSONNEL IN CONTACT. Since the onhand personnel levels represented in the above figures include all forces in theater, regardless of commitment or engagement status, further information is needed to determine the levels and timing of forces engaged in active combat. The KDB records the contact status (with the enemy) of each combat unit on each day. Figure 4-3 partitions the total personnel in the combat units of each force into those in contact and those not in contact. All personnel in HQ unit echelons above division are included among the "not in contact" in this chart. The chart shows that almost all of the available German manpower was engaged after 4 July. On 5 July, 93 percent of onhand German manpower was engaged against only 38 percent of the Soviet troops, which contributed to the enormous Soviet casualty rates (for engaged forces) which are recorded in the KDB on that day. Over 5-18 July, an average of 92 percent of the German manpower was engaged, versus an average 67 percent for the Soviets. The Soviet engagement fraction peaked during 12-14 July at 81-84 percent and dropped to 72 percent by 18 July. From 5 through 18 July, German engagement fractions never dropped below 86 percent. Since rest and replenishment were minimal in such a heavily committed force, the effectiveness and efficiency of German combat elements probably deteriorated over time relative to the Soviet force.

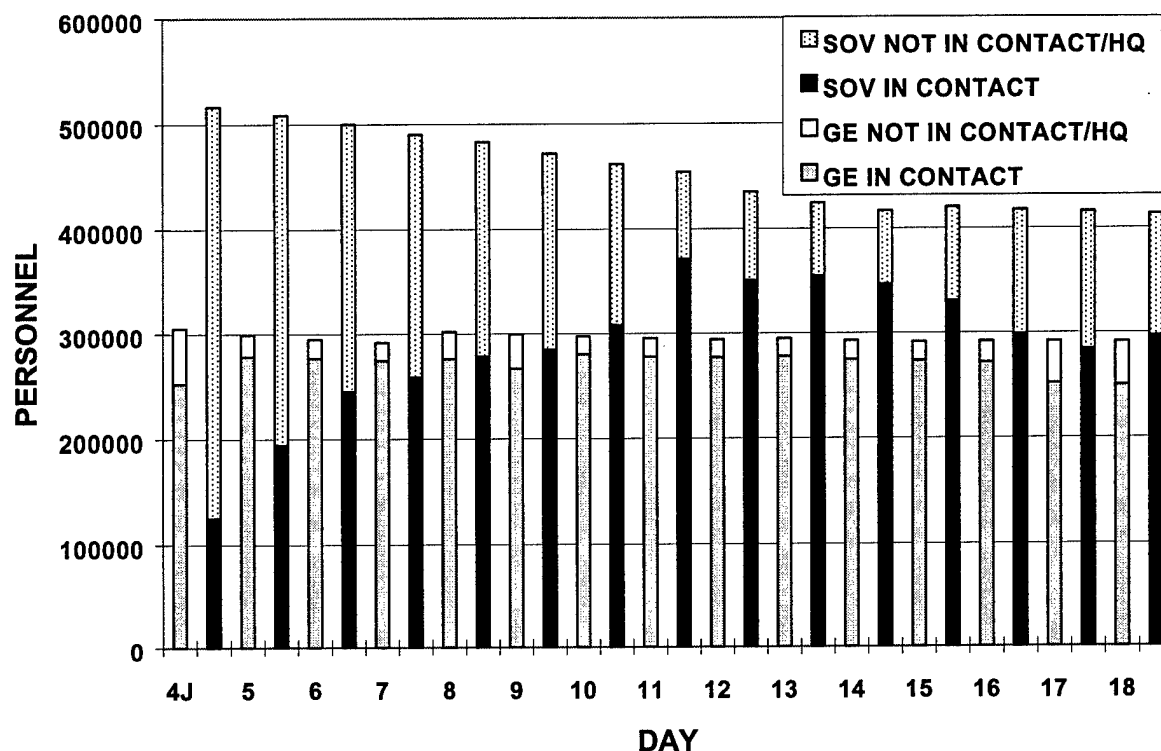


Figure 4-3. Onhand Personnel in Contact/Not in Contact

4-4. CASUALTIES

a. Fraction Casualties during Campaign. For each casualty type, Figure 4-4 shows the fraction of the total combat unit force which were casualties. For each force, WIA accounted for the largest amount of casualties, and the Soviet WIA fraction (.125) was only a little higher than the German WIA fraction (.089). The next largest Soviet casualty fraction was for CMIA (.050), but KIA accounted for the second largest German casualty fraction (.018). The Soviet CMIA rate was over 10 times greater than the German rate (.0037). Fewer than 1 percent of personnel were DNBI in each force.

b. Daily Cumulative Casualties and Replacements. Figures 4-5 through 4-9 show daily cumulative total casualties and daily cumulative casualties in each casualty type. Figure 4-10 shows daily replacements and returns to duty from medical treatment facilities. Relative to initial onhand, total casualties amounted to 23 percent of the Soviet force and 12 percent of the German force. The largest differences are in KIA and CMIA. Overall, the Soviets lost nearly five men killed for every German killed. The difference in CMIA is far greater, with 23 Soviet CMIA for every German CMIA. Overall, combined KIA and CMIA accounted for 45 percent of Soviet casualties, but only 18 percent of German ones. The majority of casualties were WIA. The Soviets incurred twice as many WIA as the Germans, but, as noted above, the Soviet WIA fraction was only a little higher than the German WIA fraction. The effect of a large German advantage in number of "permanent" (KIA) kills was offset by near parity in "temporary" loss rates (fraction of force wounded). Individual replacements were not significant, amounting to at most 2 percent of the initial force.

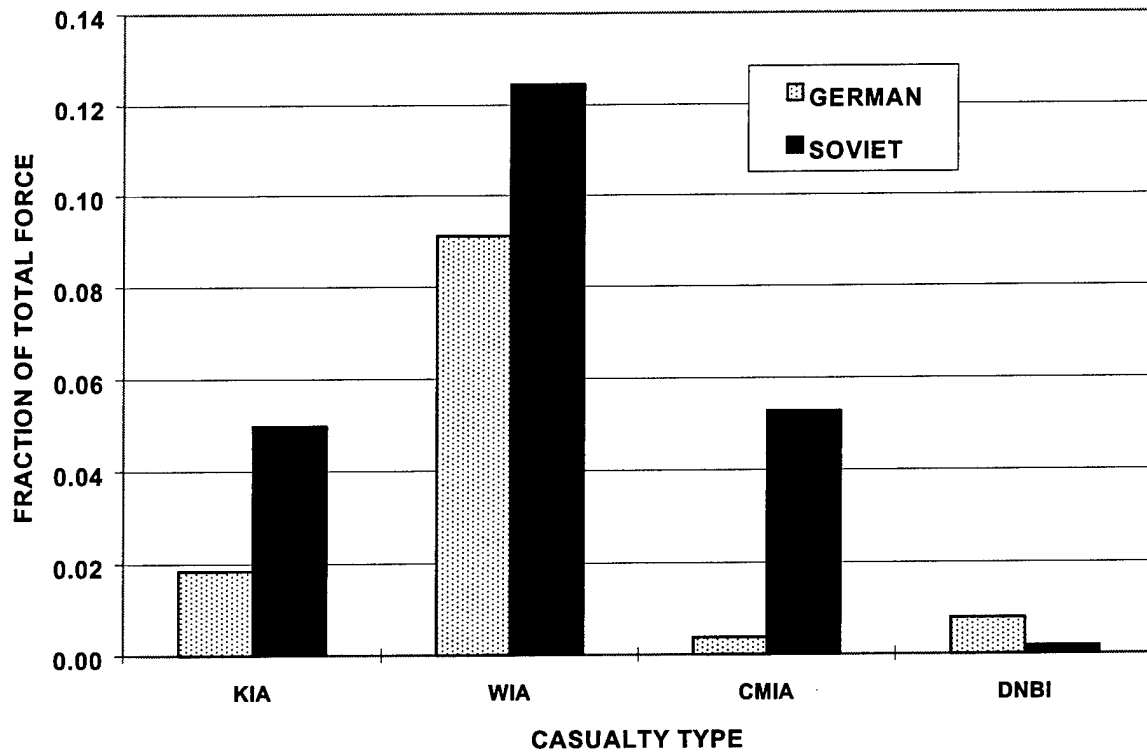


Figure 4-4. Fraction of Force Casualties by Casualty Type

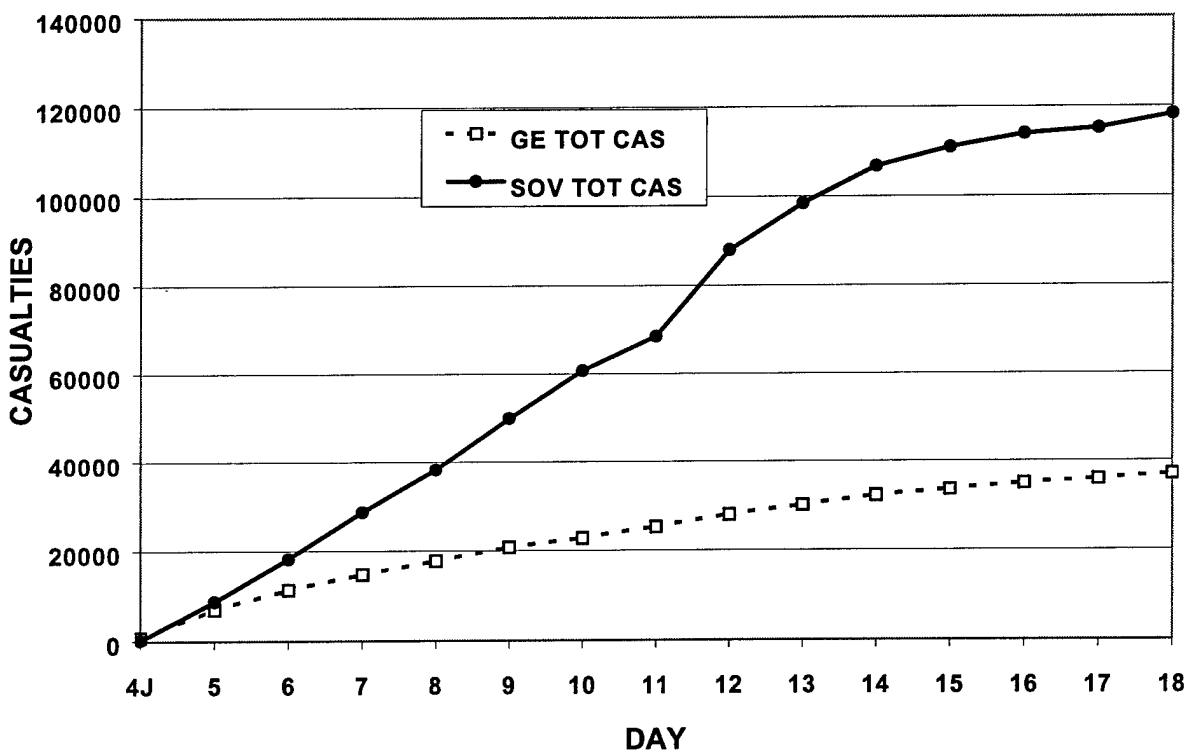


Figure 4-5. Cumulative Total Casualties

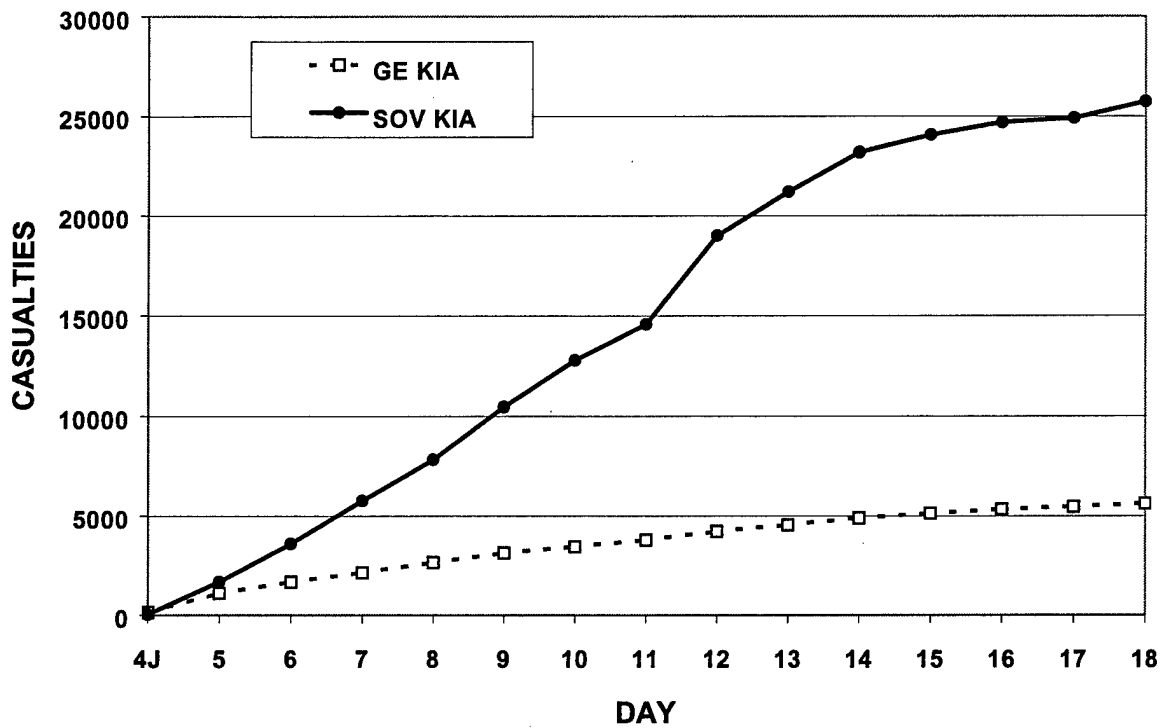


Figure 4-6. Cumulative KIA Casualties

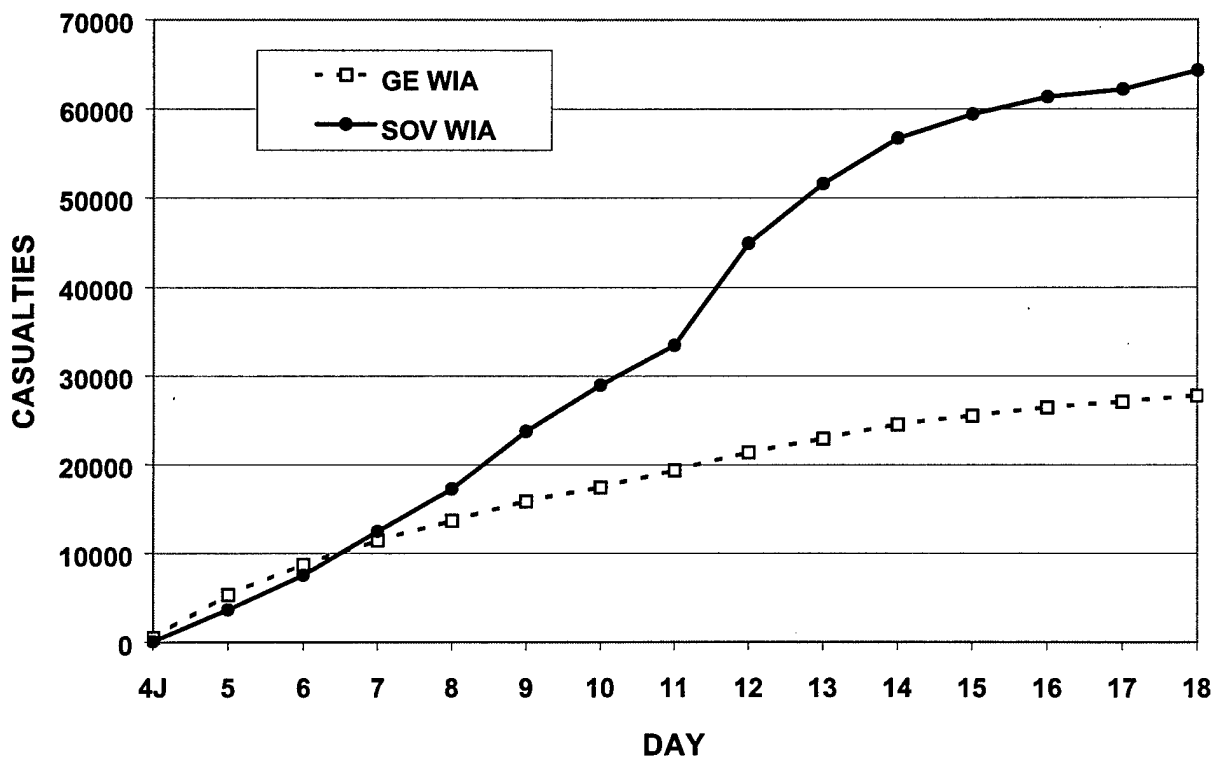


Figure 4-7. Cumulative WIA Casualties

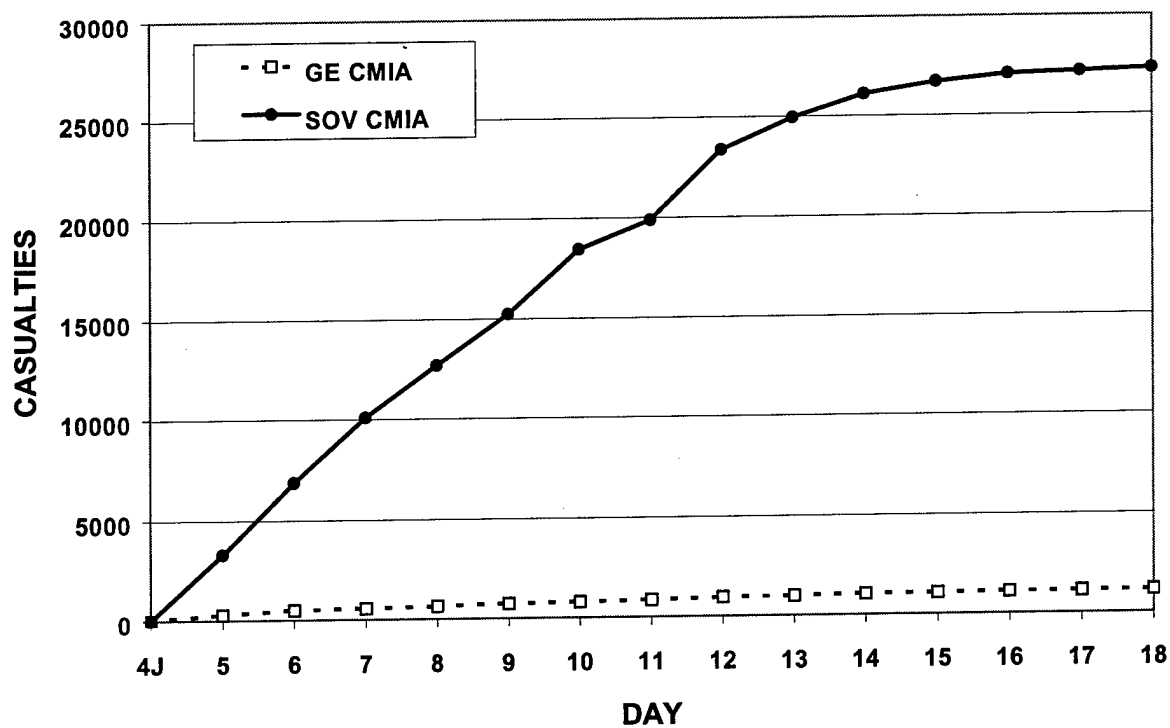


Figure 4-8. Cumulative CMIA Casualties

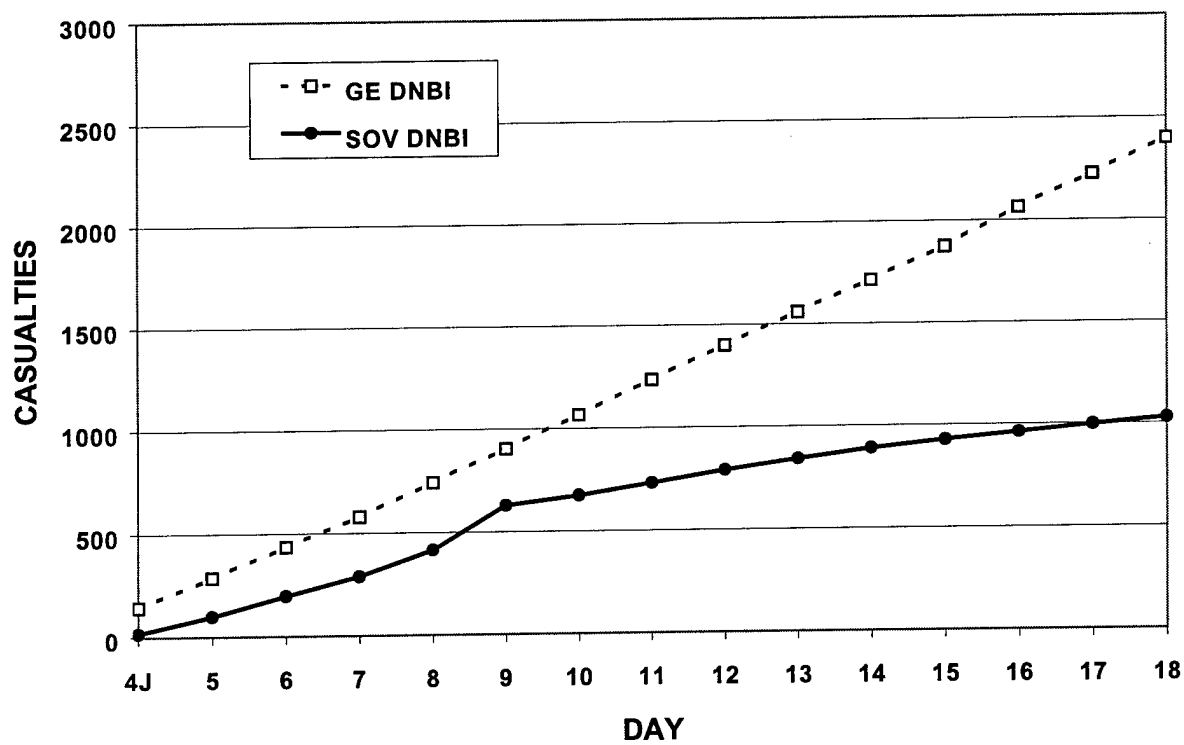


Figure 4-9. Cumulative DNBI Casualties

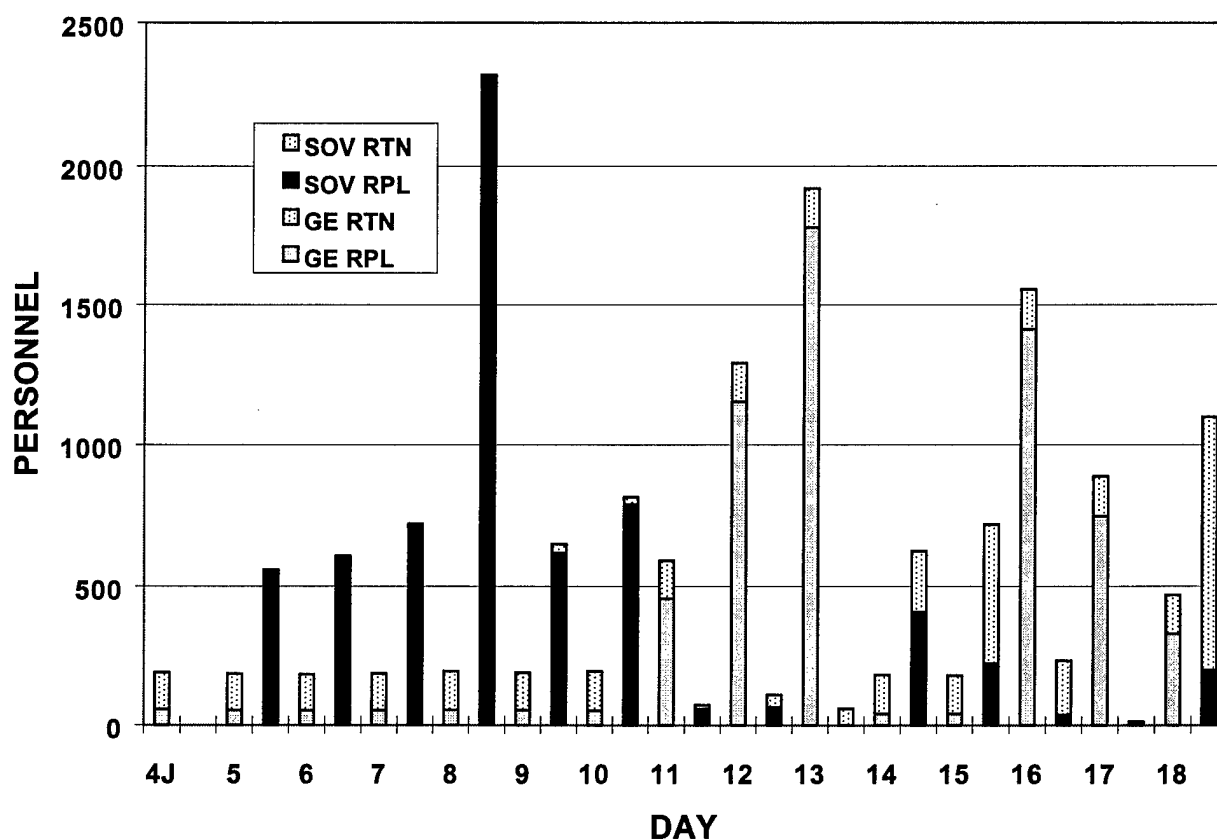


Figure 4-10. Daily Personnel Replacements and Returns

c. Stratification of Cumulative Casualties by Type. Figure 4-11 partitions the daily cumulative German casualties (shown in Figure 4-5) according to casualty type. Figure 4-12 does the same for daily cumulative Soviet casualties. When comparing force results, the much greater number of Soviet CMIA (27,300 Soviet vs 1,100 German overall) stands out, as does the greater number of German DNBI (2,400 German vs 1,000 Soviet overall).

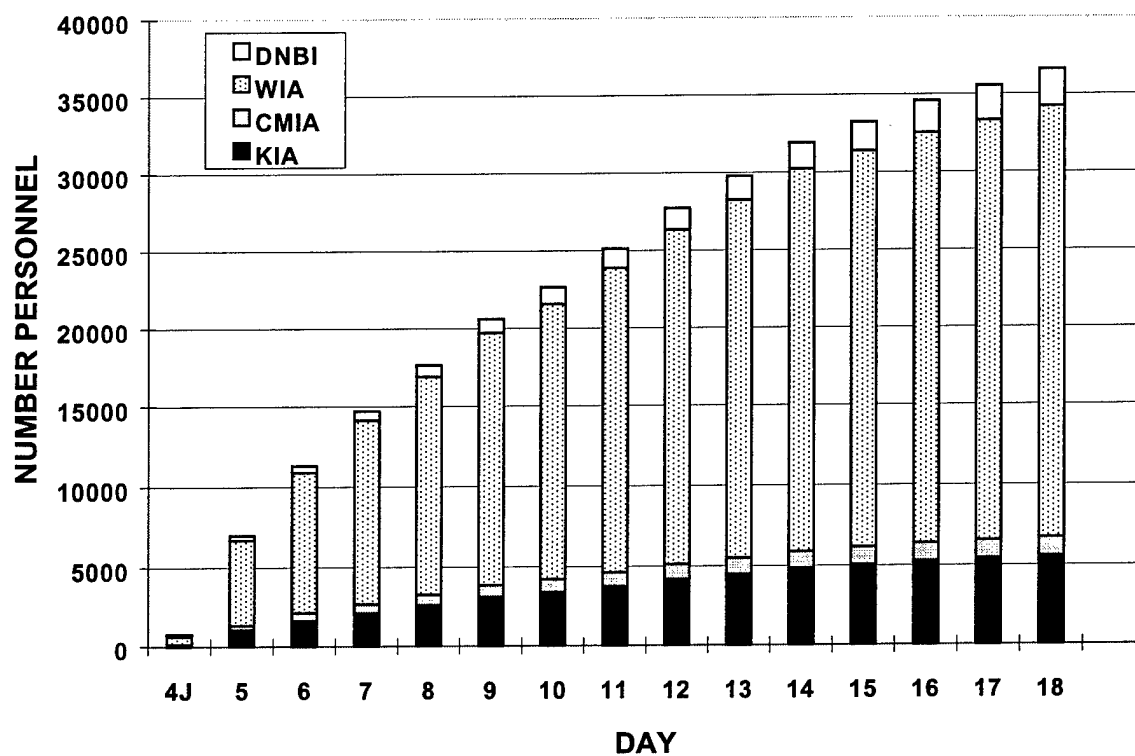


Figure 4-11. Stratification of Cumulative German Casualties by Casualty Type

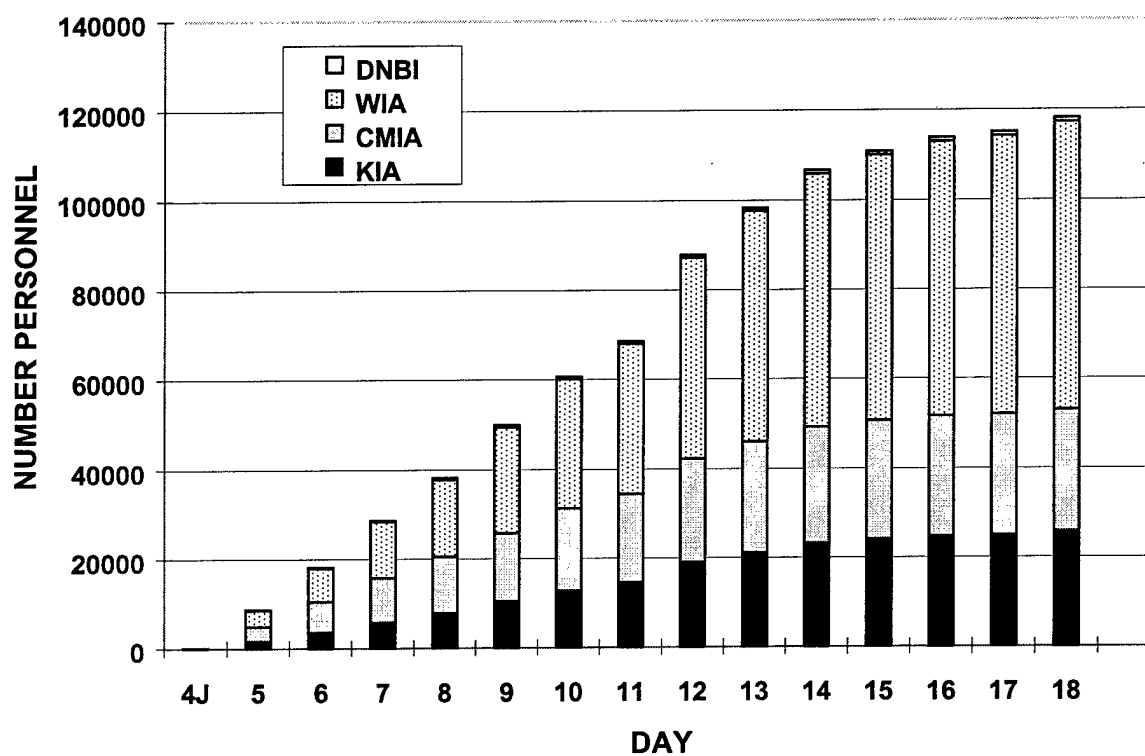


Figure 4-12. Stratification of Cumulative Soviet Casualties by Casualty Type

d. Daily Total Casualties. Figure 4-13 shows daily total casualties for both forces. From 5-18 July, Soviet casualties were much greater than German. The German peak occurred on 5 July, the first full day of combat. The Soviet peak occurred on 12 July, when, as noted in paragraph 3-3, the Soviet force began a major counterattack. Casualties for both forces declined from 13 through 17 July, because, as noted in paragraph 3-3, all German units, and most counterattacking Soviet units, shifted into defensive postures during this period. The increase in casualties on 18 July coincided with the resumption of the Soviet counteroffensive.

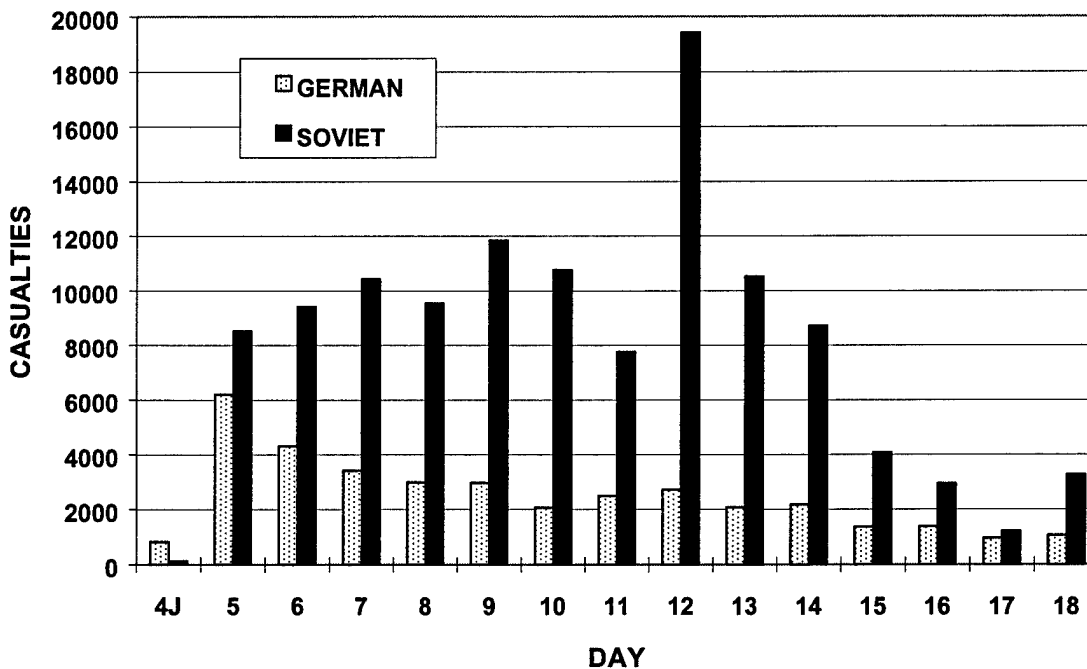


Figure 4-13. Daily Total Casualties

e. Daily Stratified Casualties by Type. Figure 4-14 shows daily German casualties partitioned according to casualty type. Figure 4-15 does the same for daily Soviet casualties. Excluding DNBI, these charts partition the combat casualties shown in Figure 4-13. Major differences include:

- (1) The German fraction of casualties which were KIA is always less than the corresponding Soviet fraction. Overall, 15 percent of German casualties were KIA, as compared to 22 percent for the Soviets.
- (2) For both combatants, 5-6 July are the days on which the fraction of total CMIA casualties was highest. On these days, German CMIA were 5 percent of all casualties, while Soviet CMIA were 38 percent of Soviet casualties.
- (3) The number of German DNBI was almost constant, varying between 143 and 171 over 14 of the 15 days. Except for 8 July, daily Soviet DNBI were always less than 100.

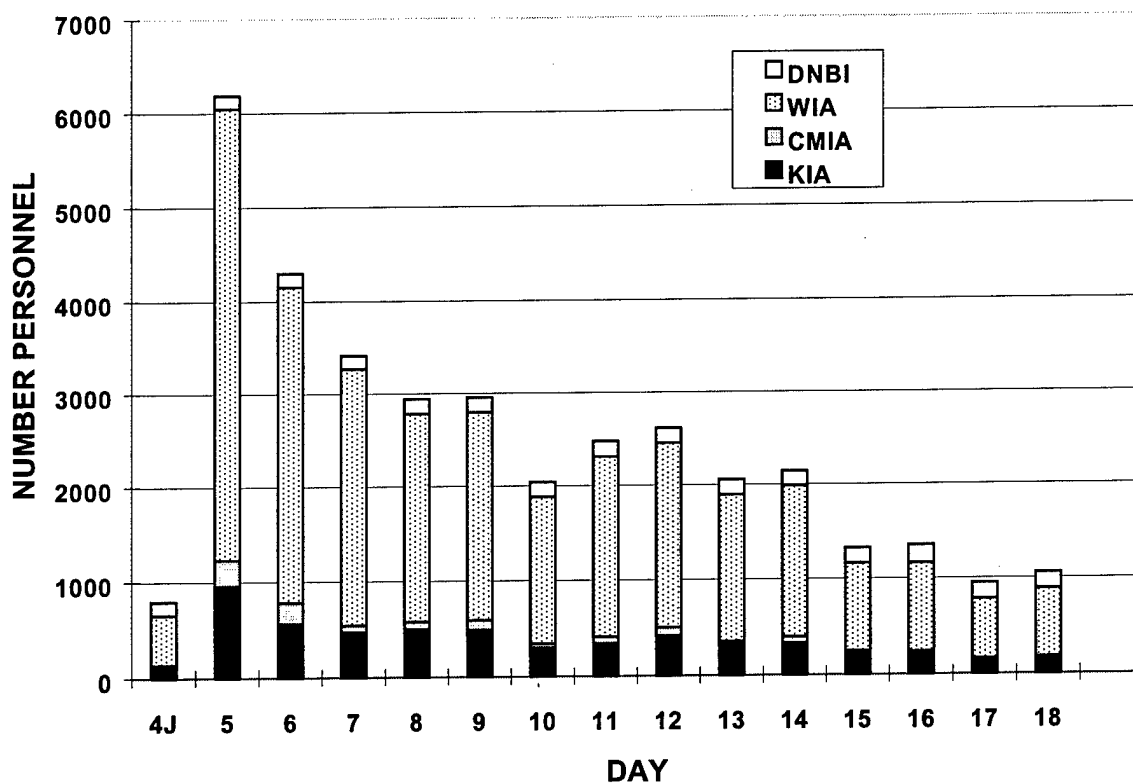


Figure 4-14. Daily Stratified German Casualties by Casualty Type

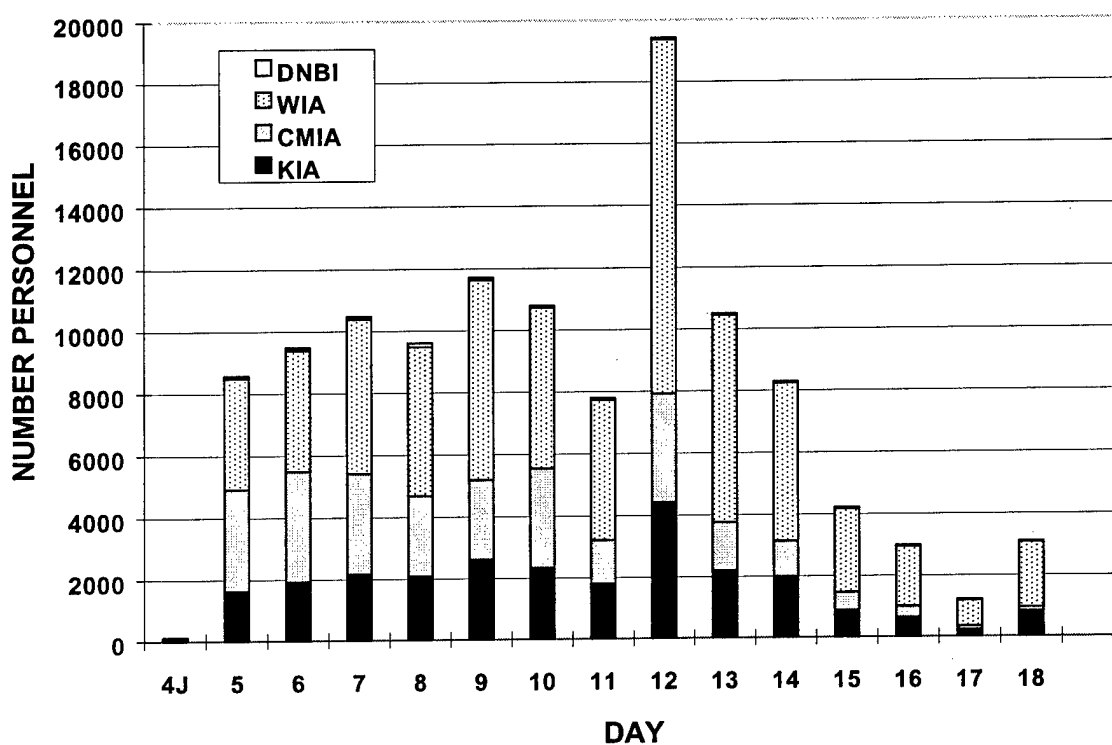


Figure 4-15. Daily Stratified Soviet Casualties by Casualty Type

f. Daily Casualty Rates

(1) Average Daily Combat Casualty Rate. Figure 4-16 summarizes average daily combat casualty rates for line units sustaining casualties. A unit's daily combat casualty rate is defined as the number of combat casualties (KIA + WIA + CMIA) incurred per 1,000 men onhand (at start of day) in that unit on that day. The daily average combat casualty rate is defined as the arithmetic average of the unit rates over all line units engaged in combat on that day. A line unit is defined here as engaged in combat on a day if it sustains more than one combat casualty on that day. Major observations include:

(a) The peak daily combat casualty rates occurred on 5 July and 12 July with average Soviet casualty rates of 64/1,000 and 53/1,000, respectively. The German peak daily rate was 21/1,000 on 5 July. The first day of the German attack was 5 July, when only a minority of the Soviet force was engaged, and several Soviet units were overrun.

(b) If daily combat casualty rates are averaged over the 5 July-18 July period, the associated Soviet rate was 31/1,000, which is 4 times the average German rate (7.7/1,000). On 12 July, the Soviet rate (53/1,000) was 7 times the German rate (7.7/1,000).

(c) Even though average daily Soviet combat casualty rates were significantly higher than German rate over units sustaining casualties, the effect on the full Soviet force was attenuated because, as was shown in paragraph 4-3, the Soviets, at all times, had a smaller portion of their full force in contact with the enemy than did the Germans.

(2) Daily Unit Combat Casualty Rates. Figure 4-17 plots the distribution of individual daily line unit combat casualty rates. A daily unit combat casualty rate is the number of combat casualties per 1,000 men incurred by a single unit on a single day. This chart plots a frequency distribution of daily combat casualty rates over all line unit/day combinations for units sustaining more than one combat casualty. Major observations include:

(a) The maximum German unit-day rate was 83/1,000, which was sustained by the 320th ID on 5 July. However, 10 percent of the Soviet unit/day rates exceeded 80/1,000, reaching as high as 445/1,000 in 90th Guards (Gds) RD on 9 July and 262/1,000 in 184th RD on 12 July.

(b) The median unit/day casualty rate was 6/1,000 for the Germans versus 14/1,000 for the Soviets.

(c) The German line unit with the highest average daily casualty rate (14/1,000) during 5-18 July was 332d ID. The Soviet line unit with the highest average daily casualty rate (70/1,000) was 52d Gds RD, but this unit only sustained casualties during 5-12 July. Daily combat casualty rates for 52d Gds RD were between 91/1,000 and 133/1,000 during the first 5 days of the German offensive.

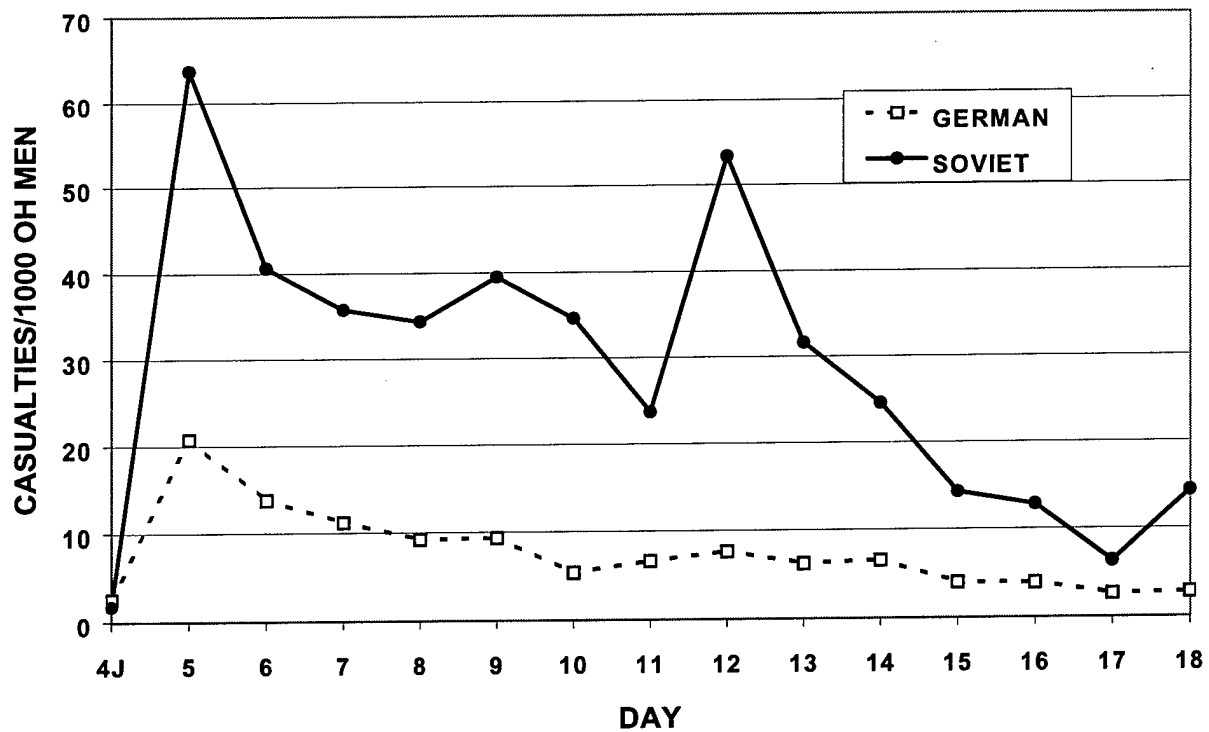


Figure 4-16. Average Daily Combat Casualty Rate over Line Units Engaged in Combat

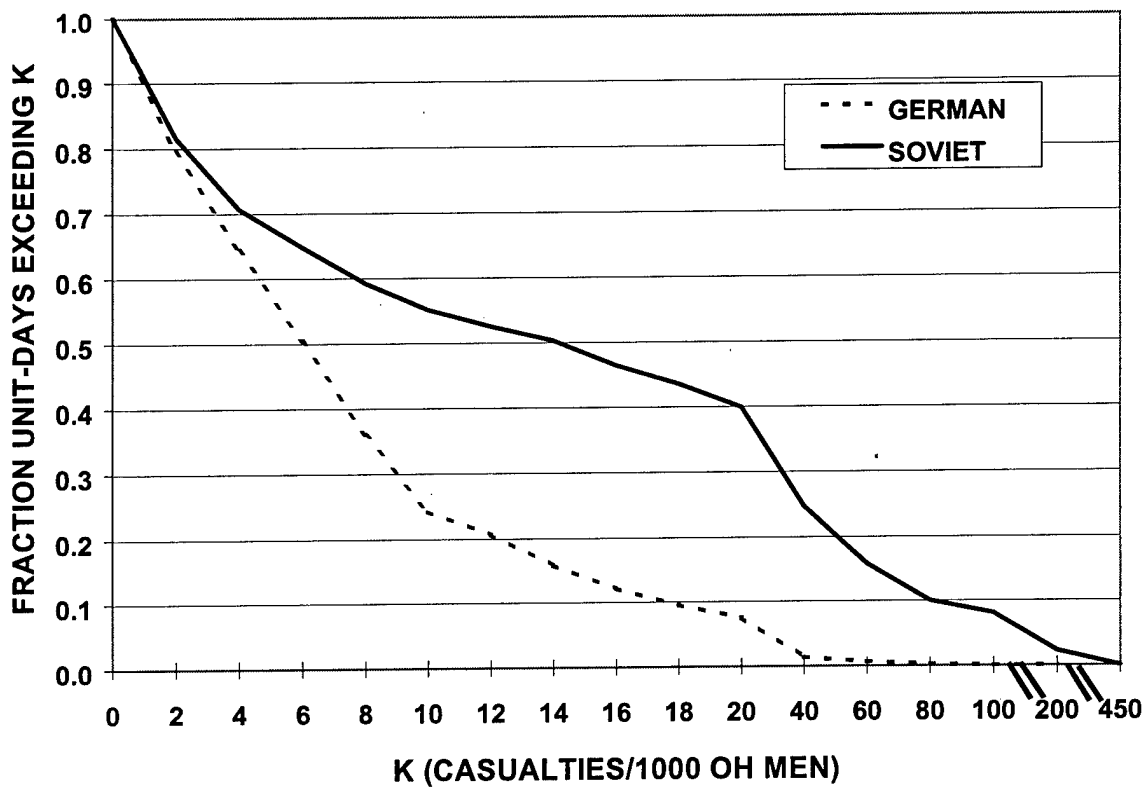


Figure 4-17. Fraction of Daily Unit Combat Casualty Rates Exceeding Specified Level K

g. Number of Units Sustaining Casualties. Figure 4-18 shows the number of line units on each day which sustain at least one combat casualty in the KDB during 4-18 July. This shows that, after 4 July, all German line units in the theater were taking casualties, but, on average, 14 of the 48 Soviet units were not taking casualties during this period. This suggests that the German force was subjected to more fatigue from the effects of nearly constant combat than was its opponent.

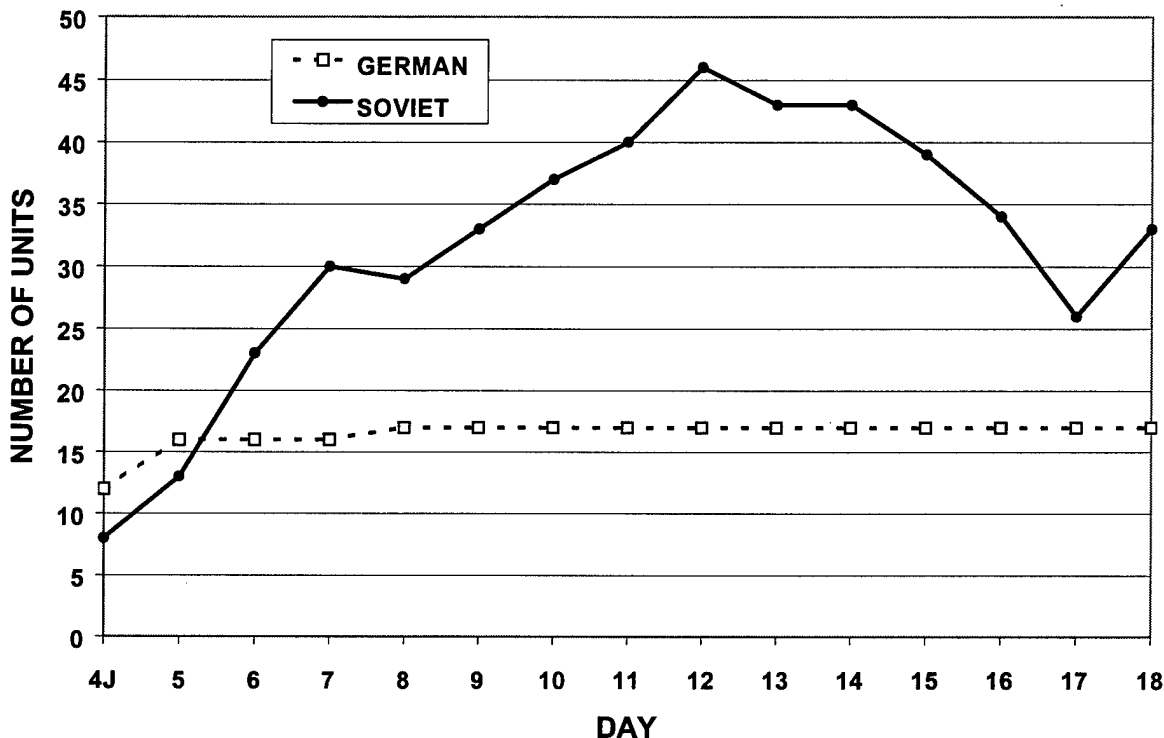


Figure 4-18. Daily Number of Line Units with More than One Combat Casualty

4-5. FRACTIONAL EXCHANGE RATIOS

a. Definition. A commonly used indicator of relative combat effectiveness in the US Army is FER. For two forces, e.g., GE and SV, engaged against each other during a time period, the personnel Soviet/German FER computed in favor of force GE is defined as:

$$\text{FER (in favor of GE)} = [\text{SV losses}/\text{SV onhand}]/[\text{GE losses}/\text{GE onhand}]$$

where the losses are all casualties of the same specified type (e.g., KIA) suffered in the entire force during the time period, and onhand denotes all available personnel in the entire force in the theater at the start of the time period. The entire force includes all units in theater, regardless of whether or not they are in contact with the enemy. A weapon FER for a damage type and weapon type is defined exactly analogous to the personnel FER definition given above. Theory and historical evidence both agree that, for a force A engaged against a force B, the greater the

FER in favor of force A, the greater is the likelihood of victory for force A. Empirical FER statistics from the 1944-45 Ardennes Campaign of WWII are treated in another CAA publication (Ref 5). The definition of FER allows flexibility in choice of casualty criterion, time period, and engaged forces used in its computation.

b. Daily Personnel FER. Figure 4-19 shows daily (a 1-day time period) personnel Soviet/German FER computed in favor of the Germans for each of two casualty criteria. The upper graph shows a killed, captured, or missing in action (KCMIA) FER with losses in terms of KCMIA (=KIA + CMIA) casualties, while the lower graph shows a combat casualty (CCAS) FER with losses in terms of combat casualties (CCAS = KIA + CMIA + WIA). Major observations include:

- (1) Both types of FER peak on 10 July and 12 July.
- (2) The KCMIA FER is much greater than the CCAS FER. The KCMIA FER exceeds 4.00 on 9 days. The CCAS FER is considerably smaller. Of the 15 days, 7 have a CCAS FER less than 2.00, and only 3 days have FER exceeding 3.00.
- (3) Both types of FER drop rapidly after 12 July.
- (4) Both types of FER results show that the Germans almost always had an advantage (FER > 1). However, the historical battle outcome suggests that this was not enough to achieve a decisive victory.

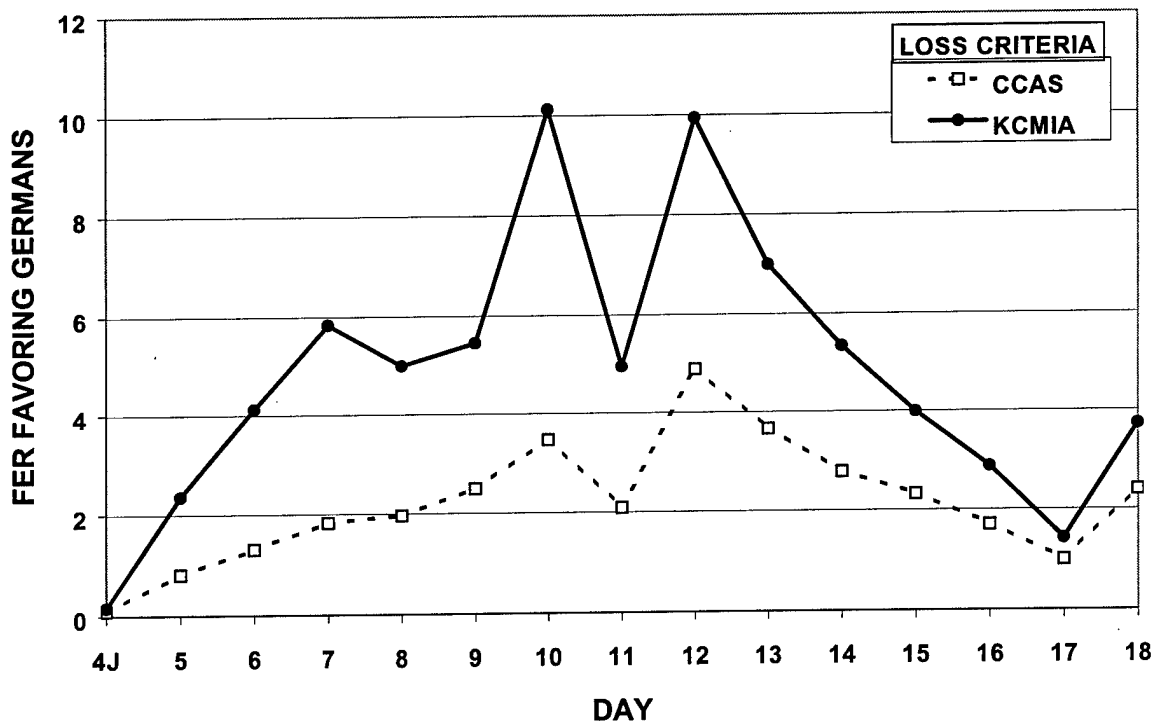


Figure 4-19. Personnel Soviet/German FER

4-6. SUMMARY OBSERVATIONS

- a. Over 5-18 July, an average of 92 percent of the German manpower was engaged, versus an average 67 percent for the Soviets.
- b. The effect of a large German advantage in number of "permanent" (KIA) kills is offset by near parity in "temporary" loss rates (fraction of force wounded). Since the initial Soviet force was almost double the size of the Germans, a campaign of attrition could not produce a decisive German victory with these casualty rates.
- c. From 5 July to 18 July, Soviet casualties were much greater than German. Relative to initial onhand, total casualties amounted to 23 percent of the Soviet force and 12 percent of the German force. The largest differences were in KIA and CMIA. Overall, the Soviets lost nearly 5 men killed for every German killed and 24 CMIA for every German CMIA.
- d. If daily average combat casualty rates are averaged over the 5 July-18 July period, the overall Soviet combat casualty rate was 4 times the German rate. Even though average daily Soviet combat casualty rates were significantly higher than German ones over units sustaining casualties, the effect on the full Soviet force was attenuated because the Soviets had a smaller portion of their force in contact with the enemy than did the Germans.
- e. After 4 July, all German line units in the theater were suffering daily casualties, but, on average, almost 30 percent of Soviet line units were not taking casualties during this period. Over 5 July to 18 July, an average of 92 percent of the German manpower was in contact with enemy forces, versus an average 67 percent for the Soviets. This suggests that the German force was subjected to more fatigue from the effects of nearly constant combat than was its opponent. Also, since rest and replenishment were minimal in such a heavily committed force, the effectiveness and efficiency of German combat elements probably deteriorated over time relative to the Soviet force.
- f. FER results computed in favor of Germans, based on both KCMIA casualties and on combat casualties, show that the Germans almost always had an advantage ($FER > 1$). The KCMIA FER exceeds 4.00 on 9 days. However, the historical battle outcome suggests that this was not enough to achieve a decisive victory.

CHAPTER 5

ARMY WEAPON STATISTICS

5-1. INTRODUCTION. This chapter presents statistics on inventory and losses in Soviet and German army weapons during the campaign. All statistics shown are computed over the full KDB combat force, as listed in Appendix D, including HQ units, line units, and nondivisional units, both committed and uncommitted. The many specific weapon types listed in the KDB were grouped into nine weapon classes in order to achieve compact summarization. Details on specific weapon types can be found in the KDB documentation. Weapon type inventories and losses for specific weapon types in each individual combat unit are listed in Appendix H (German units) and Appendix I (Soviet units). Comparison of loss rates for opposing forces is also presented in terms of a measure denoted as the fractional exchange ratio.

5-2. WEAPON CLASSES. The weapon classes used in this report are: tanks (TANK), armored personnel carriers (APC), artillery (ARTY), rocket launchers (RKTL), heavy antitank weapons (ATH), mortar (MTR), light antitank weapons (ATL), flamethrowers and heavy machineguns (FLAME/MG), and antiaircraft weapons (AA). All weapons of each specified KDB weapon type are in only a single weapon class. Most assignments of weapon types to classes are the same as those used in the KDB documentation. A weapon type with dual capability (e.g., antitank and artillery) is assigned to the weapon class representing what was judged to be its primary function in the battle.

a. German Weapon Class Composition. Table 5-1 defines the weapon type composition of the nine weapon classes in terms of the German weapon types in the KDB. More detail on individual weapon type descriptions (models, etc.) can be found in the KDB documentation. All German weapon types with nonzero entries in the KDB are represented in this table. Selected individual class/weapon comments include:

(1) **TANK.** Soviet T-34s in this class are captured tanks operated by Germans.

(2) **APC.** All Panzer I and Panzer II light tanks are treated as APCs because they were usually used in support roles, such as command, observation, recovery, and munitions carrier vehicles.

(3) **ARTY.** The Wespe and the StuH combat vehicles are treated as self-propelled (SP) 105mm artillery. The Grille and Hummel combat vehicles are treated as SP 150mm artillery.

(4) **RKTL.** The items counted in this class are the number of launchers. The 280mm/320mm Wurfrahmen set is treated as an SP rocket launcher.

(5) **ATH.** This class includes only guns larger than 50mm, all Marder II and Marder III gun systems, and all StuG III combat vehicles are treated as SP 75mm AT. Other German self-propelled guns (SPG) are classed as artillery. Some Marder vehicles are mounted with a captured Soviet 76.2mm AT gun.

(6) FLAME/MG. This class includes all man-portable flamethrowers. Vehicle-mounted flamethrowers are assigned the weapon class associated with that vehicle. The 7.92mm MG includes only the MG 34 or 42 mounted on a tripod.

b. Soviet. Table 5-2 defines the weapon type composition of the nine weapon classes for the German weapons in the KDB. More detail on individual weapon type descriptions (models, etc.) can be found in the KDB documentation. All Soviet weapon types with nonzero entries in the KDB are represented in this table. Selected individual class/weapon comments include:

(1) ARTY. All SU-122 combat vehicles are treated as SP 122mm artillery. All SU-152 combat vehicles are treated as 152mm artillery.

(2) ATH. This class includes only guns larger than 50mm. Heavy Soviet AT comprises all (towed and SP) 76mm guns, all 57mm AT guns, and all 85 mm AT guns. All other SP heavy guns are classed as artillery. All SU-76 combat vehicles are treated as SP 76mm AT guns. SU-76 using captured 75m German 75mm AT are treated as SP 75mm AT guns.

(3) FLAME/MG. All flamethrowers in this class are assumed to be ROKS2 Pack Flamethrower. The 12.7mm MG is the "DShK" on wheeled carriage. The 7.62mm MG is tripod-mounted. The 12.7mm antiaircraft MG is also included in this class.

Table 5-1. Composition of German Weapon Classes

Weapon class	KDB weapons
TANK	Pz III (all types) Pz IV (all types) Pz V (all types) Pz VI (all types) T-34 (Soviet))
APC	Armored Car (all types) Light Halftrack (all types) Medium Halftrack (all types) Pz I (all types) Pz II (all types)
ARTY	75mm LT IG (all types) 87.6mm Howitzer (British) 105mm Gun 105 mm Howitzer towed and SP) 150mm Gun (towed and SP) 150mm Howitzer (towed and SP) 152mm Howitzer (Soviet)) 155mm Howitzer (French) 210mm Howitzer
RKTL	150mm Nebelwerfer 210mm Nebelwerfer 280/320mm Rocket Launcher
ATH	75mm AT Gun (towed and SP) 76.2mm AT gun (Soviet)
MTR	50mm Mortar 81mm Mortar 82mm Mortar (Soviet)
ATL	7.92 mm ATR 28/20mm AT Gun 37mm AT Gun 45mm AT Gun (Soviet) 50mm AT Gun
FLAME/MG	Flamethrower 7.92 mm MMG
AA	37mm AA (SP and towed) 88mm AA (towed) 20mm AA (SP and towed) 20mm AA (four-barrel)

Table 5-2. Composition of Soviet Weapon Classes

Weapon class	KDB weapons
TANK	KV-1 KV-2 M-3 Grant (US) M-3 Stuart (US) MK-2 Matilda (British) MK-3 Valentine (British) MK-4 Churchill (British) T-34 T-60 T-70
ARTY	122mm Gun (towed and SP) 122mm Howitzer (towed and SP) 152mm Gun SU-152 SP Howitzer 203mm Howitzer
RKTL	BM-13 "Katyusha"
ATH	57mm AT Gun 75 mm Gun (German) 76mm Gun (towed and SP) 85mm AT Gun
APC	Armored Car (BA-64, BA-10)) Armored Transport Bren Gun Carrier
MTR	50mm Mortar 82mm Mortar 120mm Mortar
ATL	14.5mm ATR 45mm AT Gun
FLAME/MG	Flamethrower 7.62mm MMG 12.7mm HMG
AA	25mm AA Gun 37mm AA Gun 40mm AA Gun 85mm AA Gun

5-3. ONHAND WEAPON ASSETS. Figures 5-1 and 5-2 show OH quantities by weapon class at the start (4 July) and the end (18 July) of the campaign represented in the KDB.

a. Initial/Final Major Weapon Inventory. Figure 5-1 shows initial (4 July) and ending (18 July) onhand asset levels for the TANK, ARTY, RKTL, ATH, and APC weapon classes, which are categorized as major weapons. At the start of the campaign, most German tanks were Pz III (509) and Pz IV (364), and most Soviet tanks were T-34 (1548) and T-70 (612). Most initial German artillery were 105mm howitzer (465), 75mm Lt IG (287), and 150mm howitzer (153). Most Soviet artillery were 122mm howitzer (432) and 152mm gun (108). The Germans sustained heavy losses in tanks (50 percent reduction in OH by 18 July), but ending (18 July) levels in all other classes are close to initial levels. The Soviets sustained heavy losses (33 percent and higher) in TANK and ATH and substantial losses (about 20 percent) in APCs, with only ending ARTY and RKTL assets being close to initial levels.

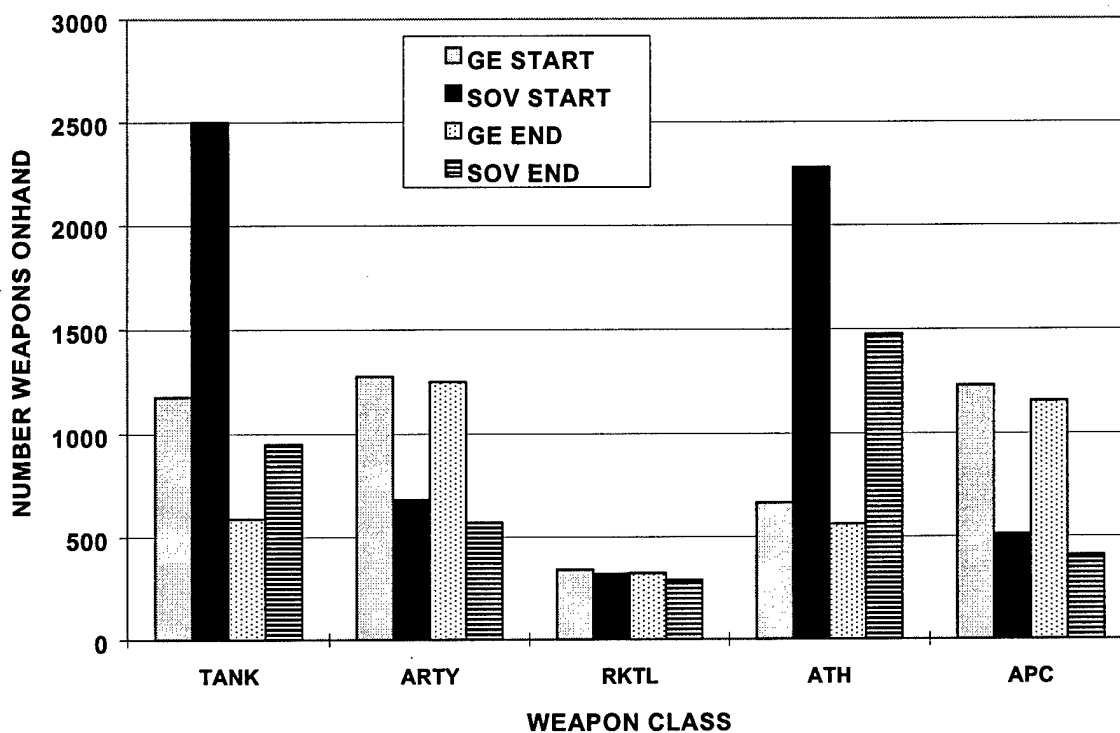


Figure 5-1. Onhand Major Weapons at Start and End

b. Initial/Final Minor Weapon Inventory. Figure 5-2 shows initial and ending onhand asset levels for the MTR, ATL, MG/FLAME, and AA weapon classes, which are categorized as minor weapons. Ending German levels in all minor weapon classes are close to initial levels. The Soviets sustained heavy losses (33 percent and higher) in MTR, ATL, and MG/FLAME weapons, with only ending AA assets being close to initial levels. The heavy losses in Soviet minor weapons were probably due to entire units being overrun during the German advance.

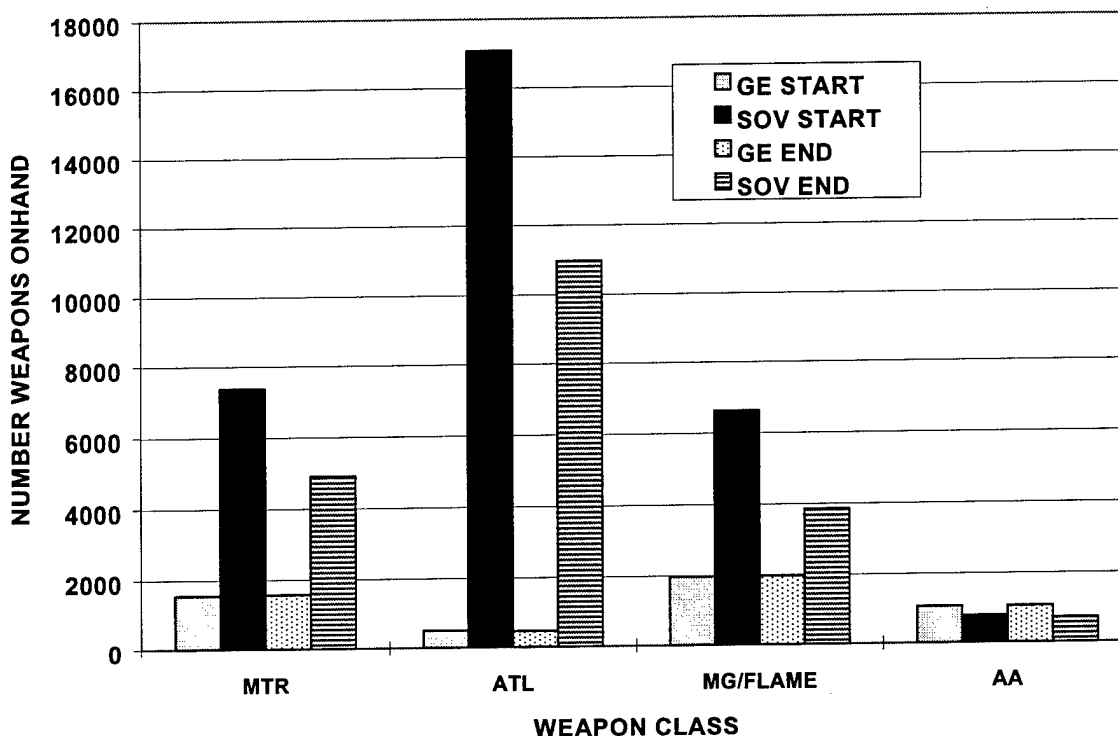


Figure 5-2. Onhand Minor Weapons at Start and End

c. Daily Onhand Assets Over Time

(1) Figures 5-3 through 5-6 show the daily onhand weapon assets in each weapon class for both combatants. Most of the decrease in inventory occurred during the period 4-12 July. The most rapid drop in German tank inventory was during 4-6 July. The most rapid drop in Soviet tanks is from 6-9 July. The early German losses were probably due to destruction from mines and fixed AT weapons after entering the Soviet fortified zones. The steep Soviet tank losses during 6-9 July reflect the more frequent tank vs tank engagements during that period, in which the German advance gained momentum, while the Soviets committed substantial tank reinforcements to prevent a German breakthrough.

(2) At the start of the campaign, the Germans were outnumbered at least 2:1 in tanks and at least 3:1 in heavy AT weapons and light infantry support weapons (machineguns, mortars, and light AT). Initial German parity or superiority in initial inventory existed only for artillery, rockets, APC, and antiaircraft weapon classes. By 18 July, German onhand tanks were about 50 percent of initial levels, but all other weapon classes were close to their initial levels. On the same day, Soviet tank levels were 40 percent of initial levels, and AT weapons and infantry support weapons (mortar, flame/MG) were all about 1/3 lower.

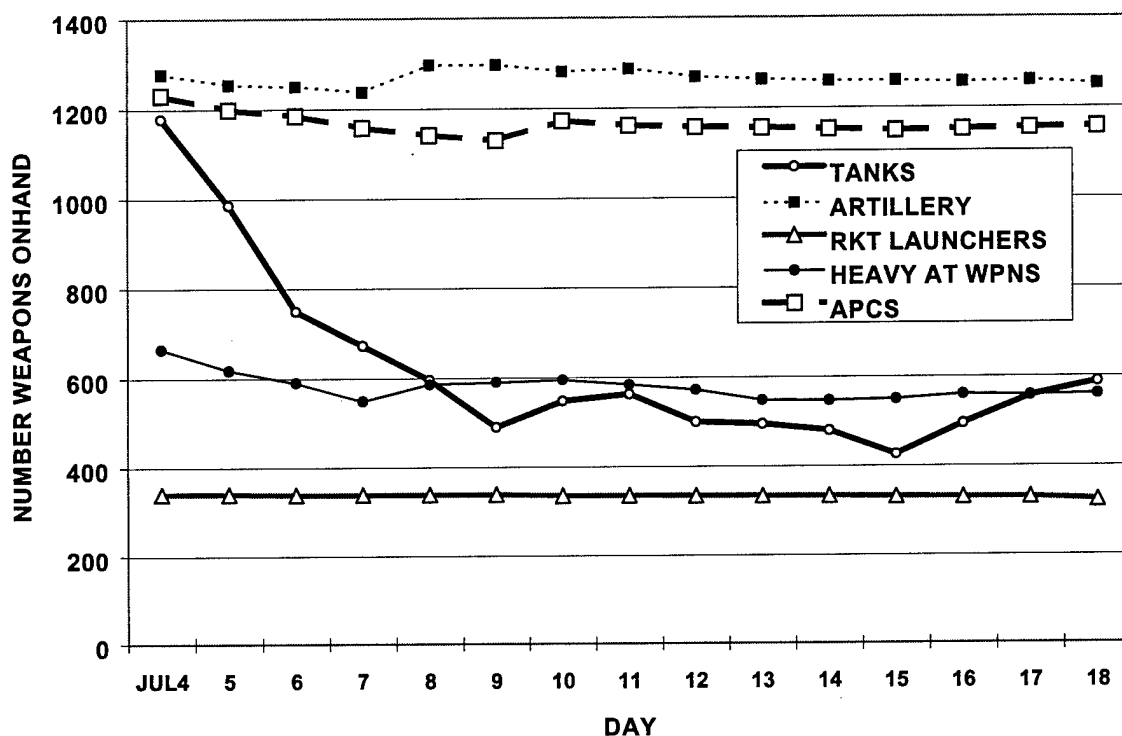


Figure 5-3. German Daily Onhand Major Weapons and Vehicles (all units)

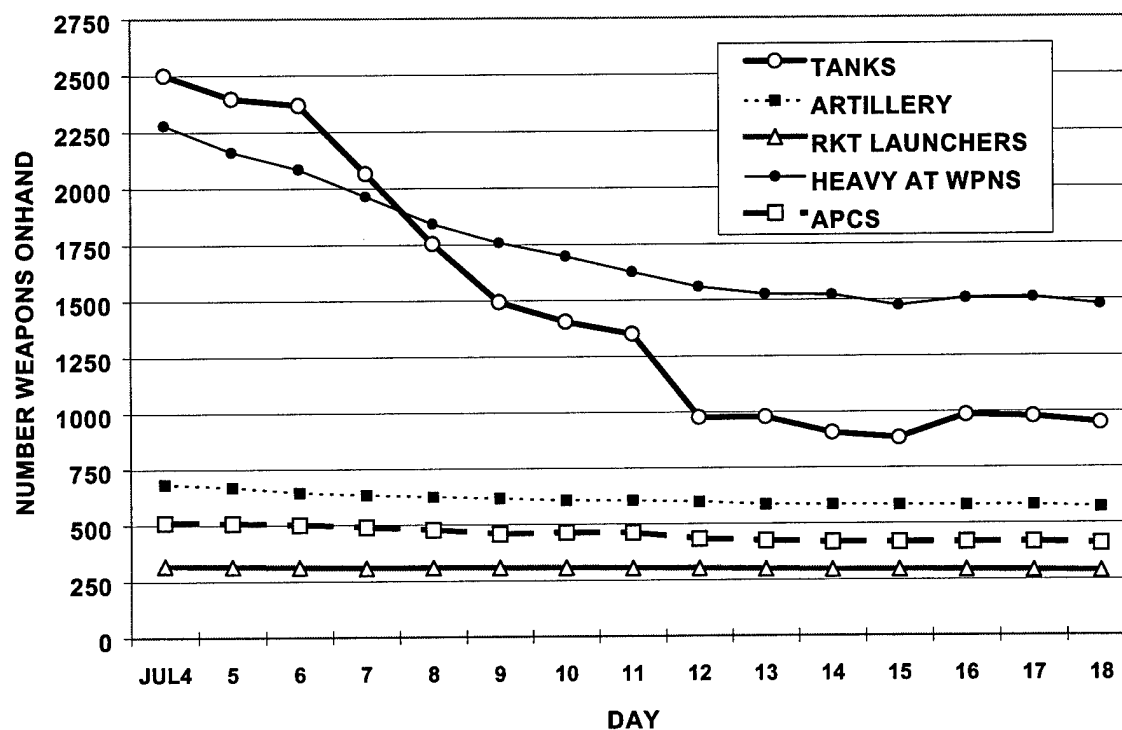


Figure 5-4. Soviet Daily Onhand Major Weapons and Vehicles (all units)

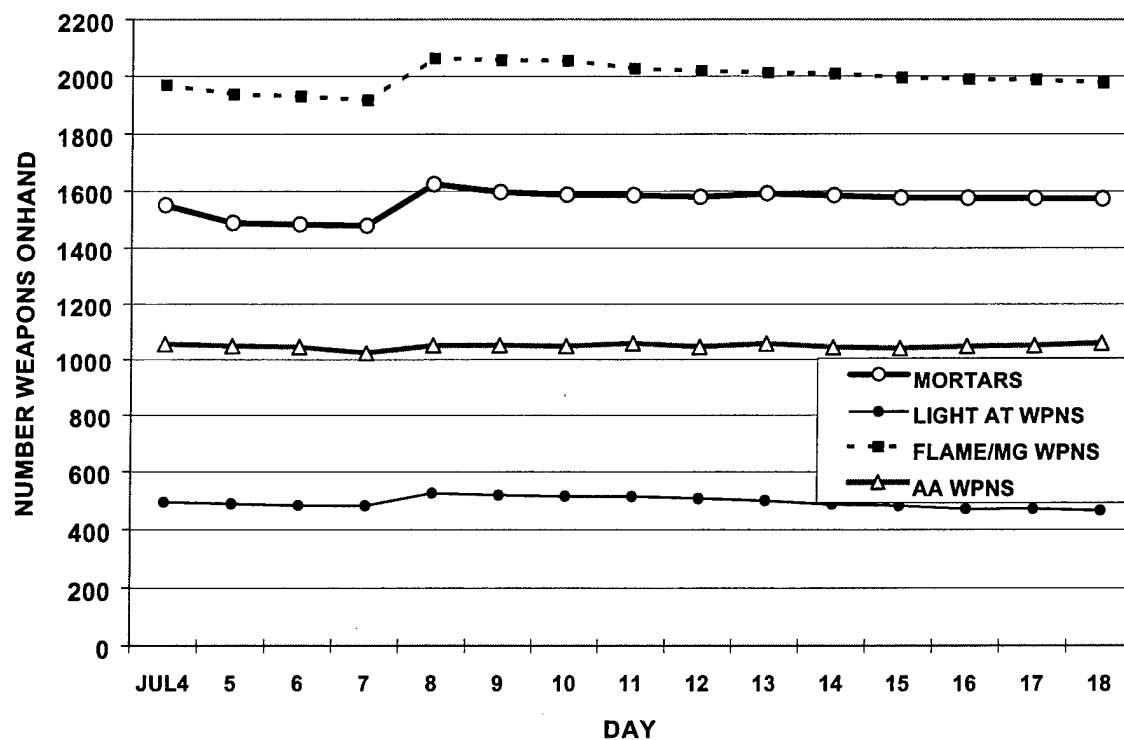


Figure 5-5. German Daily Onhand Minor Weapons and Vehicles (all units)

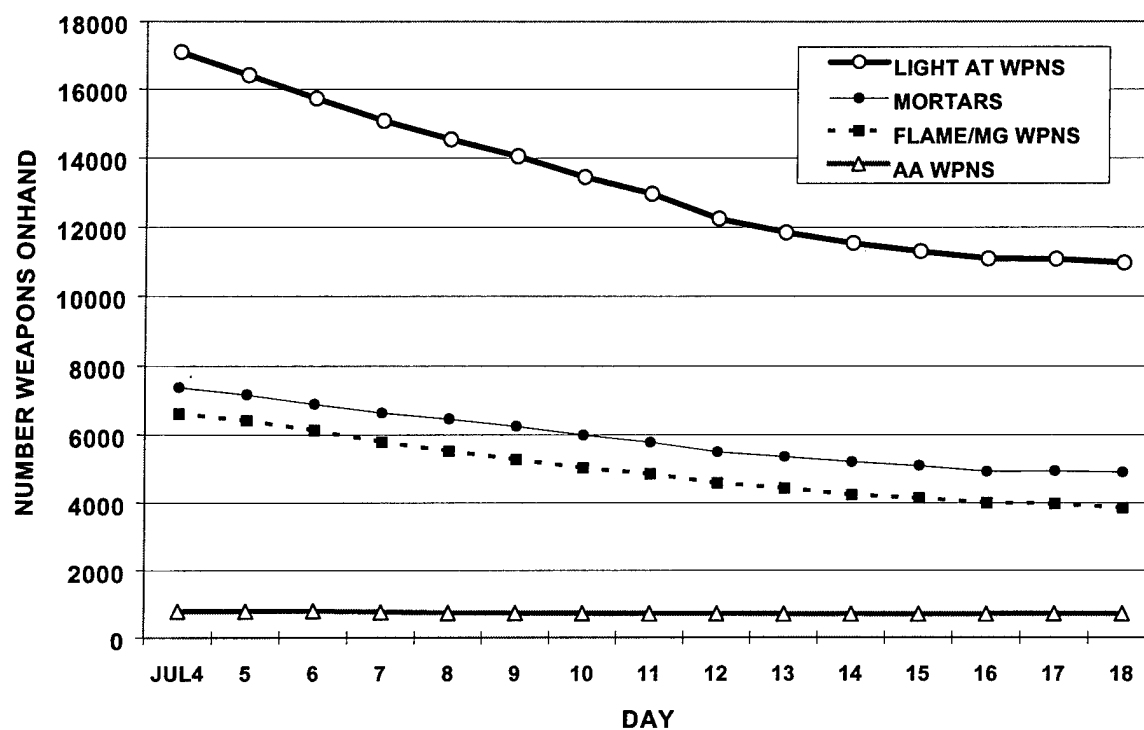


Figure 5-6. Soviet Daily Onhand Minor Weapons and Vehicles (all units)

d. Replacements. Onhand systems include replacements sent to individual units to replace losses. Figure 5-7 shows the total number of replacements in the campaign for each weapon class, as recorded in the KDB.

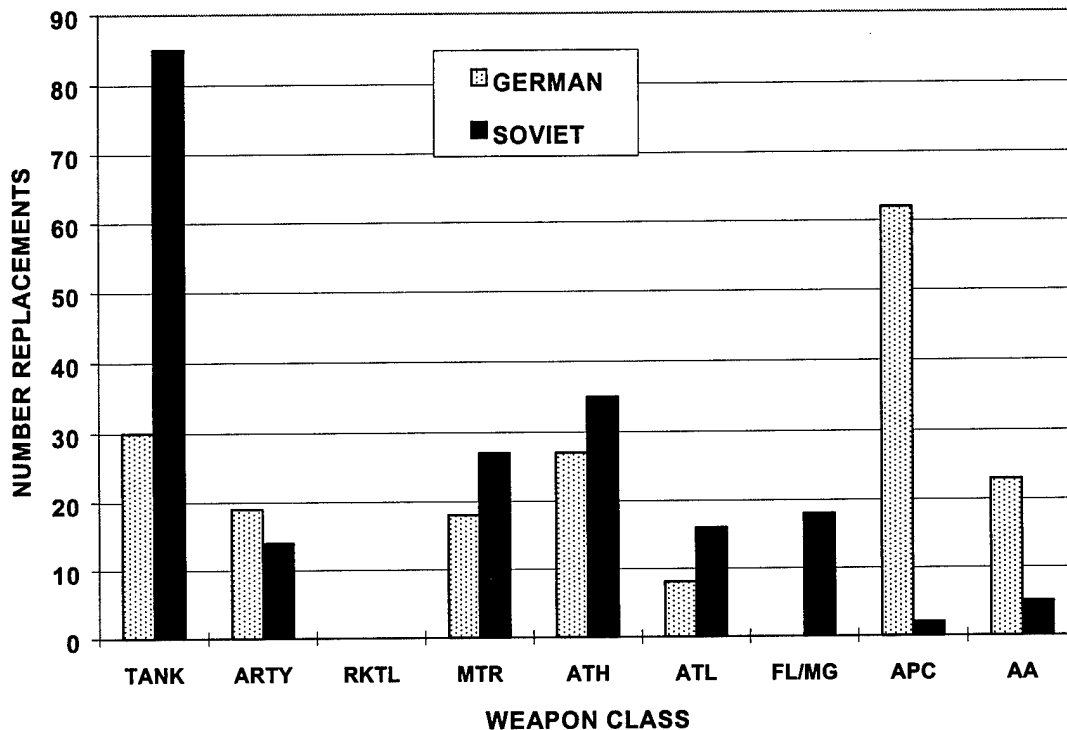


Figure 5-7. Total Replacements by Weapon Class

5-4. WEAPONS IN CONTACT. Figures 5-8 and 5-9 partition the number of tanks and heavy AT weapons in each combatant's force into weapons in contact and weapons not in contact, based on recorded KDB contact status of the owning unit. All HQ units above division are treated as not in contact.

a. Tanks. On 5 July, 20 percent of the Soviet tank force was opposed by 98 percent of the German tank force. During 5-18 July, an average 96 percent of German tanks were in contact with the enemy, as opposed to an average of only 60 percent of Soviet tanks. Soviet fraction in contact was under 67 percent, except during 11-15 July, when the fraction peaked at 89 percent. On 18 July, Soviet tanks out of contact amounted to 55 percent of the entire German tank force.

b. Heavy AT Weapons. On 5 July, 26 percent of the Soviet heavy AT force was opposed by 95 percent of the German heavy AT force. During 5-18 July, an average 97 percent of German heavy AT weapons were in contact with the enemy, as opposed to an average of only 67 percent of Soviet heavy AT. Soviet fraction in contact was always under 80 percent, except during 12-15 July, during which the fraction peaked at 86 percent. On 18 July, the number of Soviet heavy AT weapons out of contact was equal to 56 percent of the number in the German heavy AT force on that day. With an average of 97+ percent of its heavy mechanized force on the front lines, the Germans, unlike the Soviets, had no reserves on which to draw.

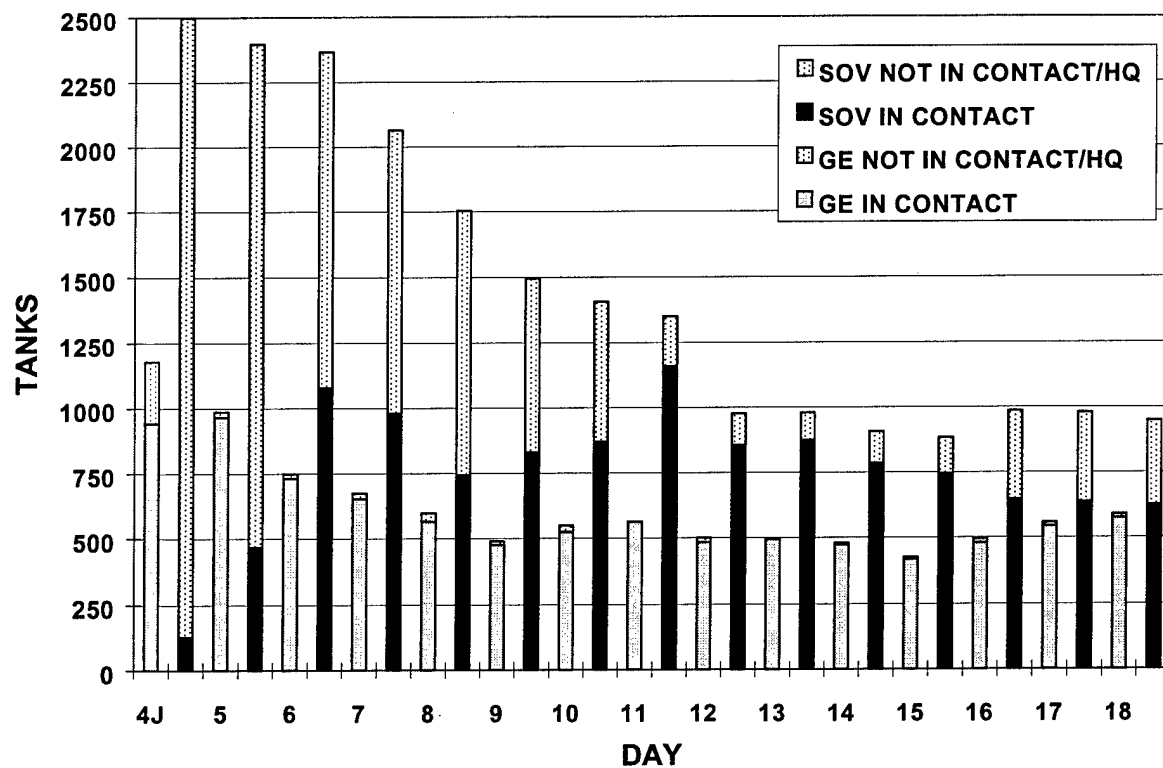


Figure 5-8. Number of Tanks in Contact/Not in Contact

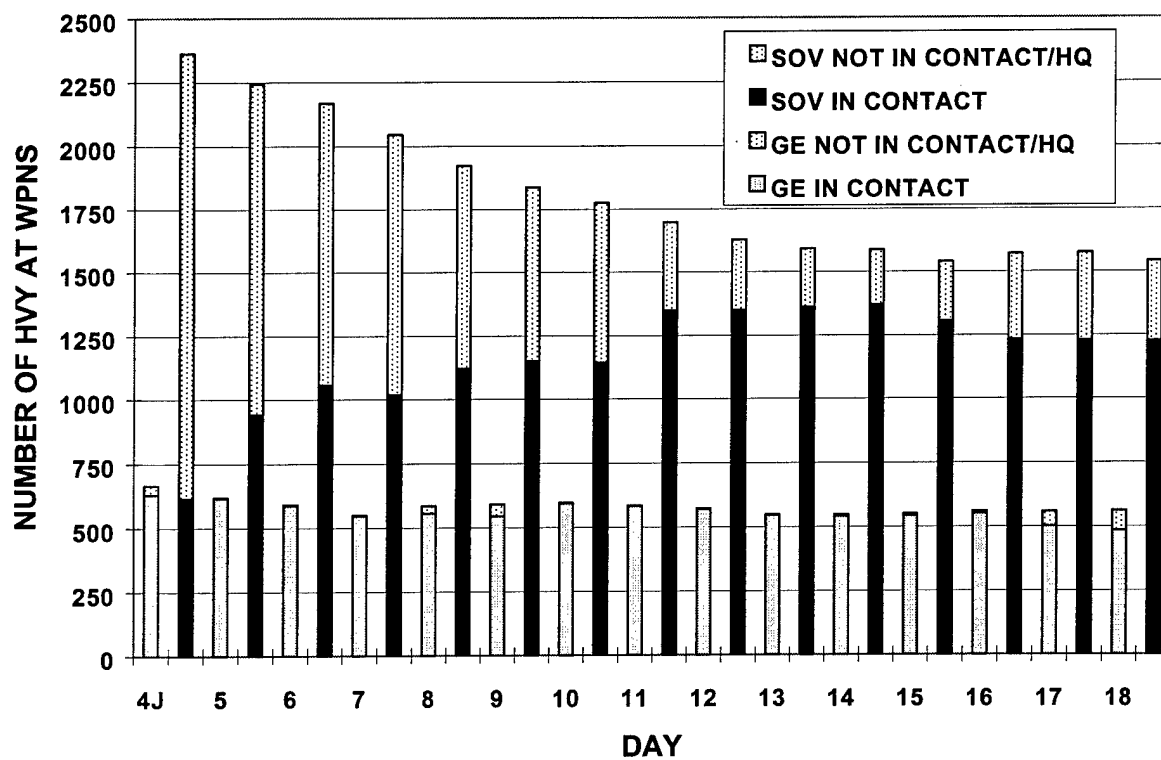


Figure 5-9. Number of Heavy AT Weapons in Contact/Not in Contact

5-5. WEAPON LOSSES

a. Total Destroyed Weapons

(1) **Total Destroyed Over Campaign.** Figure 5-10 shows the total number of each force's weapons which are recorded as destroyed in the KDB for all units in the KDB force during the period 4-18 July. Abandoned weapons are also included in this category (although they are separately recorded in the KDB). The vast majority of kills were achieved between 5 and 12 July. German AA losses and rocket launcher losses were greater than Soviet, but the Soviets lost far more in all other categories. Table 5-3 shows the ratio of Soviet:German destroyed weapons in each weapon class. Overall, the Germans killed six Soviet tanks for every tank they lost. Soviet:German loss ratios (for destroyed weapons) over the entire campaign are extremely high for heavy AT (8:1), light AT (70:1), mortars (16:1) and flame/MG (20:1). The high Soviet losses in light weapons were probably due to entire units being overrun during the German advance.

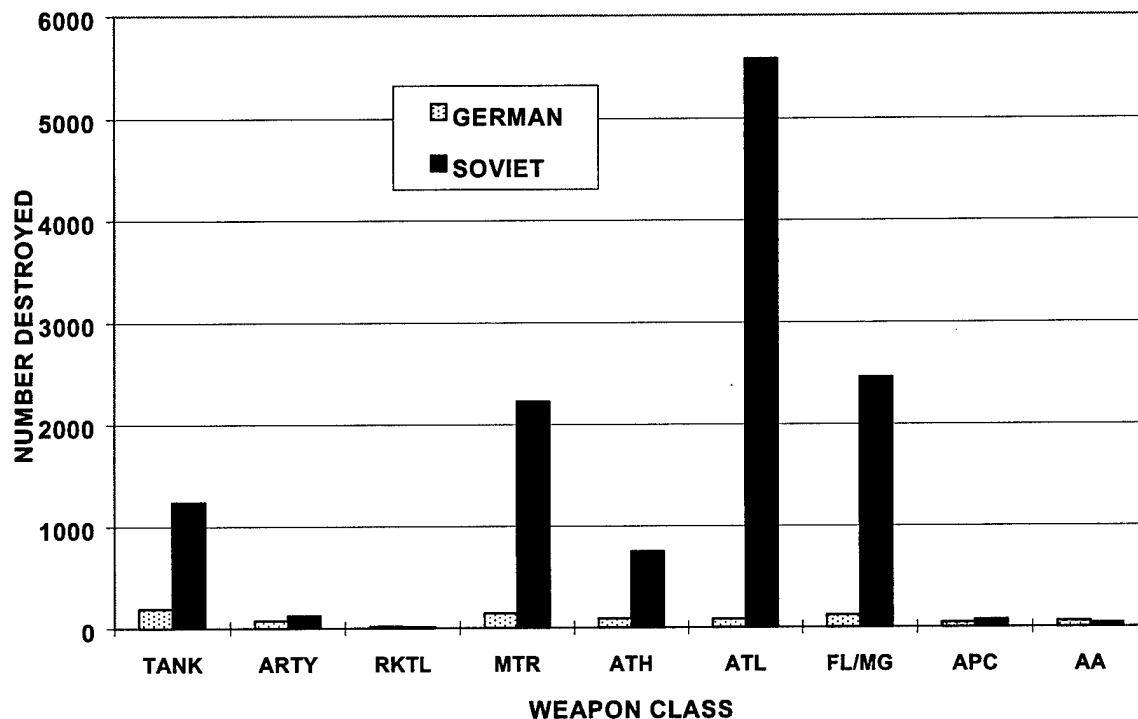


Figure 5-10. Total Destroyed Weapons by Weapon Class

Table 5-3. Ratio of Soviet:German Destroyed Weapons

	TANK	ARTY	RKTL	MTR	ATH	ATL	FL/MG	APC	AA
Soviet destroyed	1,238	122	9	2,221	749	5,581	2,456	73	37
German destroyed	191	74	17	143	89	81	119	44	58
Ratio (Soviet:German)	6.48	1.65	0.53	15.53	8.42	68.90	20.64	1.66	0.64

(2) Daily Tanks Destroyed. Figure 5-11 shows daily number of tanks destroyed for each side during the period 4-18 July. Soviet tank losses peaked on 8 July and 12 July, while maximum German losses occurred on 6 July and 9 July. The Soviet peak on 8 July corresponded to a major German "push" by 48 Pz Corps, during which 3 Pz Division and Grossdeutschland PzGrD were heavily opposed. Almost all Soviet tank losses on 8 July were in four units (3 Mech Corps, 31st Tank Corps (TC), 5th GDs TC, and 6th TC). The high Soviet tank losses on 12 July reflect the initiation of Soviet counterattacks on that day and the battle of Prokhorovka. On 12 July, 18th TC, 29th TC, 2d GDs TC, and 5th GDs TC suffered most of the Soviet tank losses.

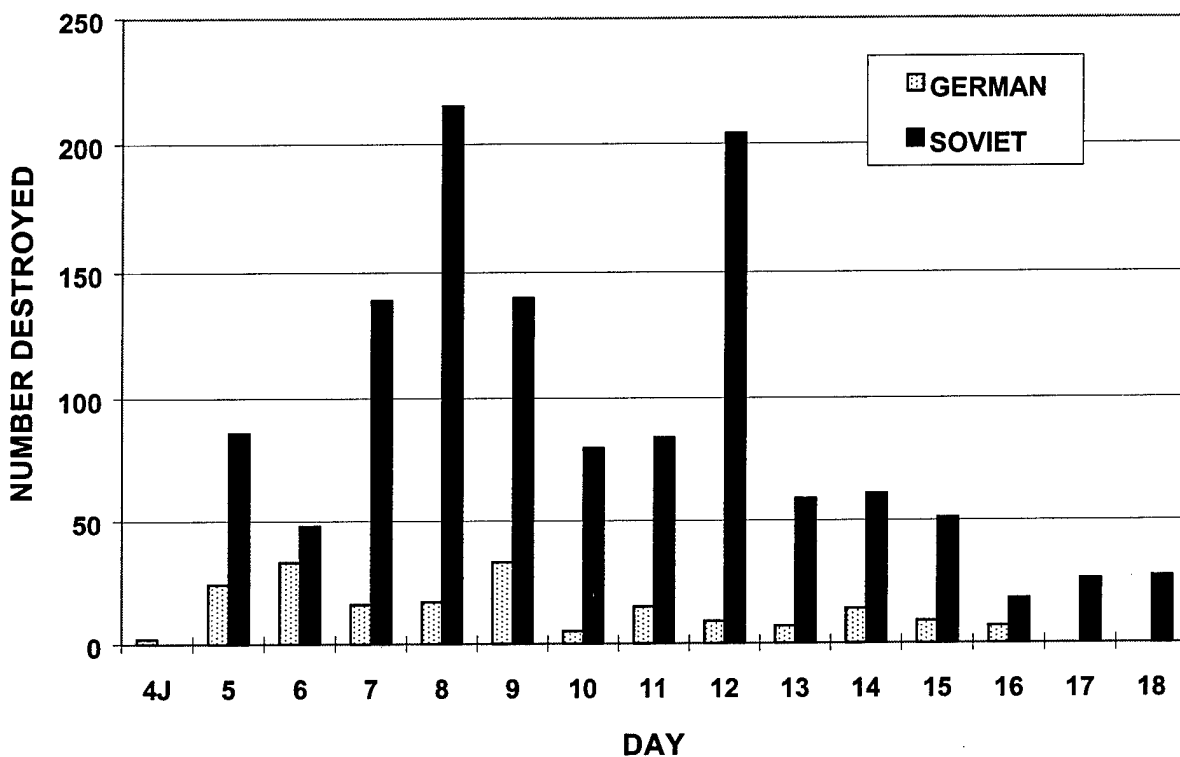


Figure 5-11. Daily Destroyed Tanks

b. Total Tanks Damaged. Figure 5-12 shows the total number of each force's weapons which are recorded as damaged in the KDB for all units in the KDB force during the period 4-18 July. The Germans had equal, or greater, numbers of damaged weapons in five weapon classes, including tanks, artillery, and heavy AT. Since the German force was smaller than the Soviet force, the German force had a significantly greater percentage damaged in these weapon classes. The most favorable comparative results for the Germans are in damaged mortars, light AT, and flamethrower/MG weapons, with over 10 Soviet weapons damaged for every German one.

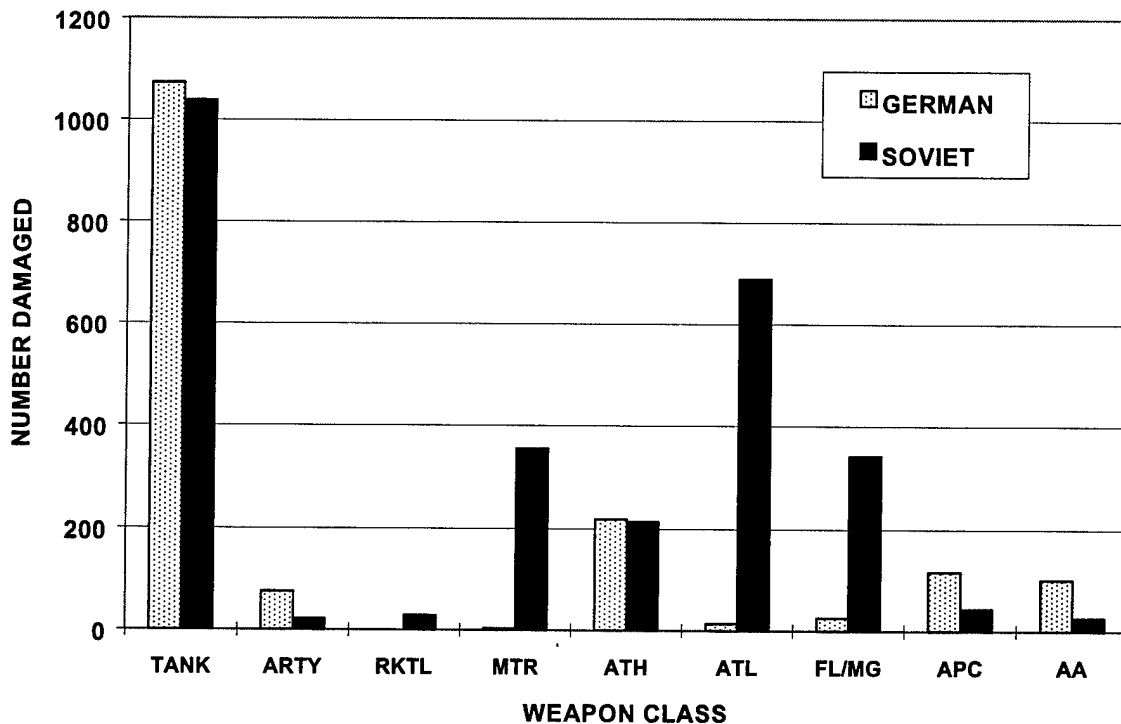


Figure 5-12. Total Damaged Weapons by Weapon Class

c. Ratio of Damaged to Destroyed. Figure 5-13 shows the ratio of damaged to destroyed weapon totals for each weapon class in each force. This ratio exceeds 1.00 for five of the nine German weapon classes, but for only one Soviet weapon class. The German ratios in the critical tank and heavy AT weapon classes are very high (5.6 and 2.5, respectively) and are 7 times greater than corresponding Soviet ratios. The degradative effects of the German disadvantage in relative (to destroyed) frequency of damaged tanks and heavy AT are unknown. A damaged weapon system is treated as only a “temporary” loss, but the period of nonoperational status can be long. Also, a damaged operational system will often function only with degraded effectiveness and efficiency.

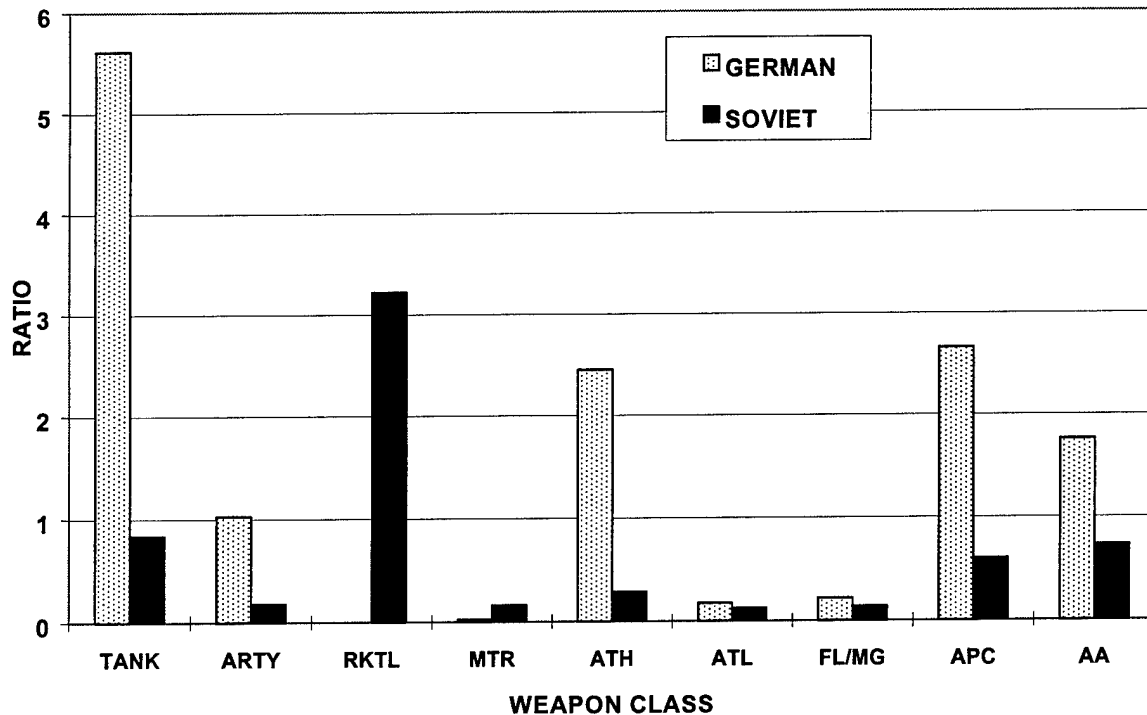


Figure 5-13. Ratio of Damaged:Destroyed Weapons in Each Class

5-6. RETURNS FROM REPAIR. Figure 5-14 shows the total of systems returned from repair in each weapon class during the campaign. The influence of systems not returned from repair is significant because such a system is functionally equivalent to a destroyed system during the campaign. Some (unrepaired) damaged systems shown in figure 5-12 were functionally the same as destroyed systems because they never became operational again during the campaign. Both destroyed systems and systems in repair reduce onhand (operational) weapon levels. The extremely large German advantage in tank kills is contrasted with a large decrease in German onhand tank levels from 5 to 18 July, nearly all of which occurred during 5-9 July. Destroyed tanks account for most of the Soviet drop in onhand tanks during the campaign (1,238 kills, 1,552 drop in OH), but the 191 German tanks killed are only a third of the 590 drop in OH German tanks. The probable reason for the difference is that the Germans had a significantly larger portion of their tank assets in a damaged nonoperational state than did the Soviets. The Soviet/German difference in operational tank losses during the campaign might be better measured by the sum of total destroyed tanks and total tanks not returned from repair. Figure 5-15 shows total [destroyed weapons + damaged weapons not returned from repair] for each weapon class over the KDB campaign. The Soviet:German ratio of [tanks destroyed + damaged tanks not returned from repair] is only 2.66, which is considerably less than the 6:1 ratio in terms of tanks destroyed. While still favorable to the Germans, it was not enough to achieve a decisive victory.

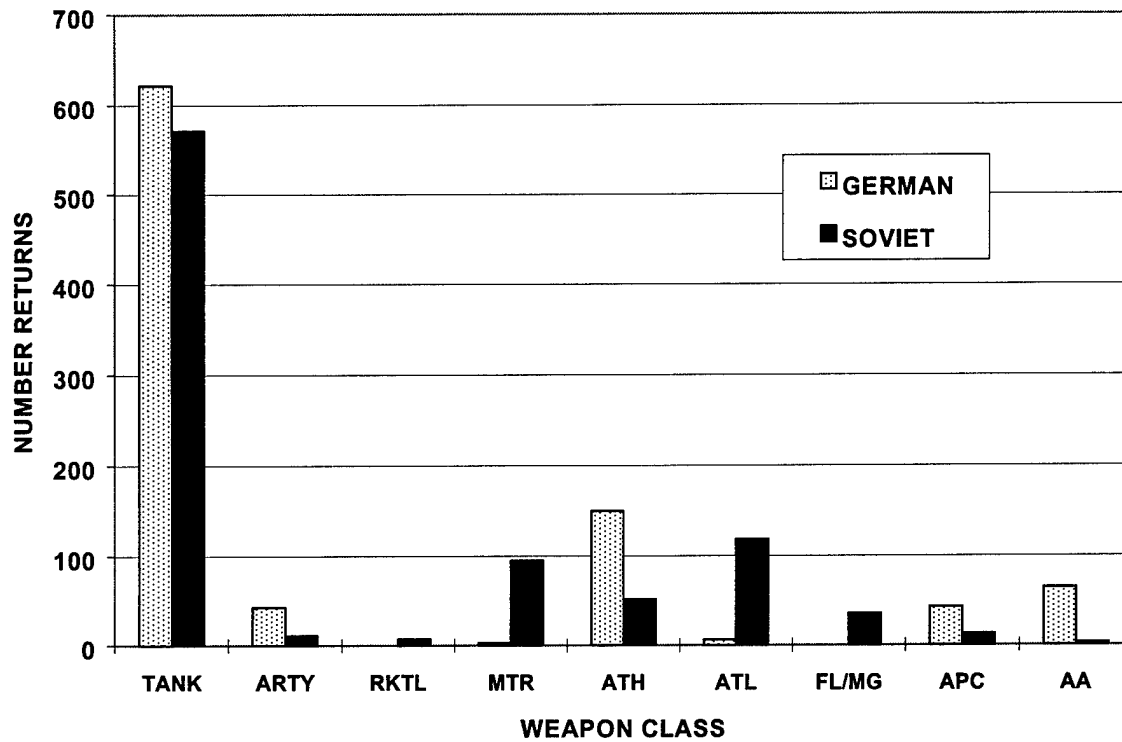


Figure 5-14. Total Returns by Weapon Class

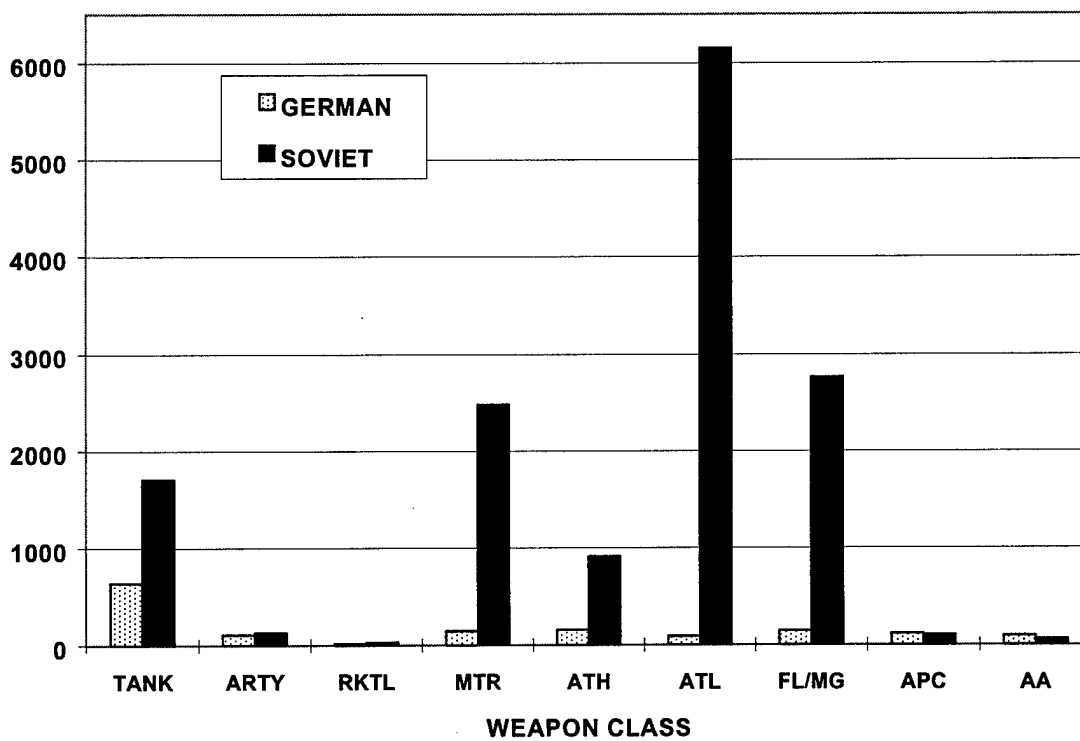


Figure 5-15. Total [Nonrepaired Damaged + Destroyed] by Weapon Class

5-7. FRACTIONAL EXCHANGE RATIO. A weapon FER for a damage type and weapon type is defined exactly analogous to the personnel FER definition given in Chapter 2. The Soviet/German FER for a weapon class (e.g., tanks), computed in favor of the Germans (GE) is defined as:

$$\text{FER (in favor of GE)} = [\text{SV losses/SV onhand}]/[\text{GE losses/GE onhand}]$$

where SV denotes Soviet, and the losses are all of the same specified type (e.g., destroyed) and are for the entire force in theater during the campaign. Onhand denotes all available weapons of that class in the entire force in the theater at the start of the campaign. The entire force includes all units in theater, regardless of whether or not they are in contact with the enemy. Figure 5-16 shows daily tank Soviet/German FER, computed in favor of the Germans, for each of two damage criteria. The upper graph in the figure shows a destroyed (DST) Soviet/German FER, computed in favor of the Germans, for a damage criterion of [destroyed or abandoned], while the lower graph shows a [DST + damaged (DMG)] Soviet/German FER for a damage criterion of [damaged or destroyed or abandoned]. Figure 5-17 shows analogous FERs for heavy AT weapons. Days in which the Germans had no losses are not plotted (since the FER is then infinitely large). The number of daily destroyed weapons was often small, especially for heavy AT weapons, with daily German heavy AT losses often less than 10. As with personnel, the "permanent kill" DST FER is much greater than the "temporary kill" [DST + DMG] FER for both weapon classes. Nine of 15 days have a [DST + DMG] FER less than 1.00 for both tanks and heavy AT weapons. A very high FER was required to achieve annihilation, but high FERs were sporadic and not sustainable. In addition, as noted earlier, the Soviets always had unengaged reserves, while the Germans were always fully committed and engaged.

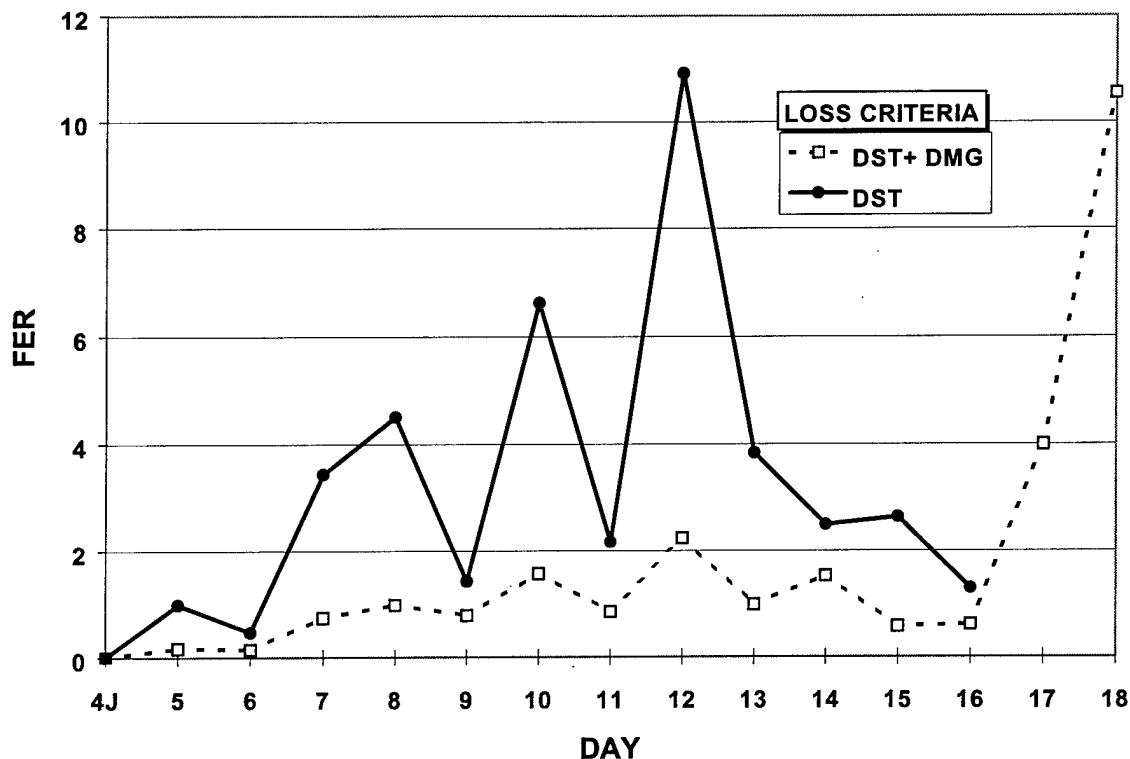


Figure 5-16. Tank Soviet/German FER

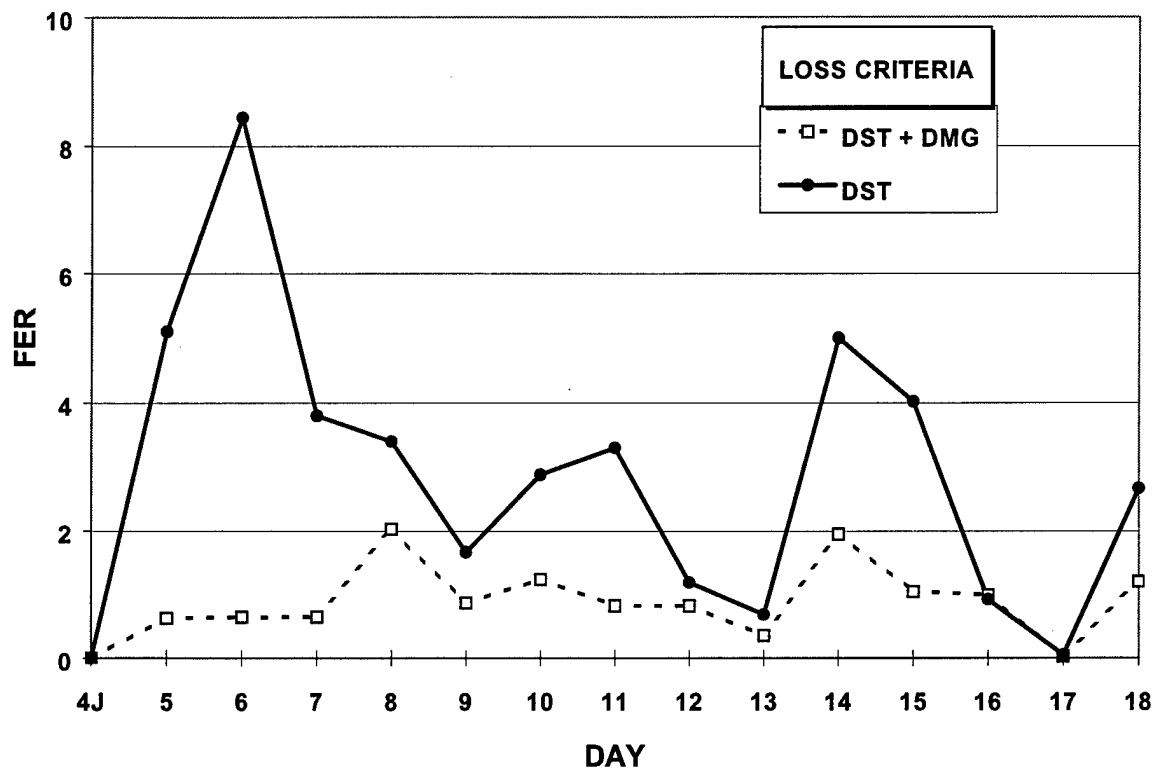


Figure 5-17. Heavy AT Soviet/German FER

5-8. SUMMARY OBSERVATIONS

a. At the start of the campaign, the Germans were outnumbered at least 2:1 in tanks, and at least 3:1 in heavy AT weapons and light infantry support weapons (machineguns, mortars, and light AT). Initial German parity or superiority in initial inventory existed only for artillery, rockets, APC, and antiaircraft weapon classes.

b. Ending (18 July) German onhand tank assets were about 50 percent of initial OH levels, but all other German weapon classes had ending OH assets close to their initial (4 July) levels. Ending Soviet tank levels were 40 percent of initial levels, and ending AT weapon and infantry support weapon (mortar, flame/MG) asset levels were about one-third lower than initial. The heavy losses in Soviet minor weapons were probably due to entire units being overrun during the German advance. Soviet artillery, antiaircraft, and rocket launcher OH assets on 18 July were close to initial levels. The vast majority of the decreases in weapon inventory occurred during the period 4-12 July.

c. From 5-18 July, an average 98 percent of onhand German tanks and 97 percent of German heavy AT weapons were in contact with the enemy, as opposed to an average of only 64 percent of Soviet tanks and only 67 percent of Soviet heavy AT. With an average of 97+ percent of its heavy mechanized force on the front lines, the Germans, unlike the Soviets, had no reserves to

draw on. The combat quality of the German mechanized weapon systems probably deteriorated from continual combat without rest and replenishment.

d. German AA losses and rocket launcher losses were greater than Soviet losses, but the Soviets lost far more in all other categories. Overall, the Germans killed six Soviet tanks for every tank they lost. Soviet:German loss ratios (for destroyed weapons) over the entire campaign were very high for heavy AT (8:1), light AT (70:1), mortars (16:1), and flame/MG (20:1).

e. The ratio of damaged to destroyed weapons exceeds 1.00 for five of the nine German weapon classes, but for only one Soviet weapon class. There were 5.6 damaged German tanks for every destroyed German tank and 2.5 damaged German heavy AT weapons for every destroyed one. The Soviet ratios of damaged to destroyed tanks and damaged to destroyed heavy AT are both less than 1.00.

f. The Soviet/German difference in operational tank losses during the campaign might be better measured by the sum of total destroyed tanks and total damaged tanks not returned from repair. The Soviet:German ratio of [tanks destroyed + damaged tanks not returned from repair] is only 2.66, which is considerably less than the 6:1 Soviet:German ratio in terms of tanks destroyed. While still favorable to the Germans, it was not enough to achieve a decisive victory.

g. The Soviet/German FERs for tanks and heavy AT weapons, computed in favor of the Germans and based on destroyed weapons, are much greater than the comparable FERs based on [destroyed + damaged] weapons. Of the 15 days, 9 have a [DST + DMG] FER less than 1.00 for both tanks and heavy AT weapons. A very high FER was required to achieve annihilation, but high FERs were sporadic and not sustained. In addition, the Soviets always had unengaged reserves, while the Germans were always fully committed and engaged.

CHAPTER 6

AMMUNITION STATISTICS

6-1. INTRODUCTION. This chapter presents daily and cumulative summary force statistics from the KDB on Soviet and German ammunition inventory and consumption during the Southern Front Kursk campaign. All statistics shown are computed over the full KDB force, as listed in Appendix D, including HQ units, line units, and nondivisional units, both committed and uncommitted. The statistics are arranged according to ammunition type, expressed as either tank/antitank tonnage, artillery tonnage (excluding rockets), rocket tonnage, or small arms/AA tonnage. The KDB weapons associated with these ammunition types are listed in Tables 5-1 and 5-2 of Chapter 5. Ammunition statistics for each ammunition type in each unit are listed in Appendix J (German units) and Appendix K (Soviet units).

6-2. ONHAND AMMUNITION. Figures 6-1 through 6-4 show comparative German and Soviet daily onhand tons of tank/AT, artillery, rocket, and small arms/AA ammunition respectively. Statistics are for the entire force, both headquarters and line units, represented in the KDB. Major observations include:

- a. Artillery and small arms/AA accounted for the majority (71 percent) of initial German tonnage, while artillery and tank/AT ammo comprised most (64 percent) of the initial Soviet tonnage.
- b. German daily onhand tank/AT, artillery, rocket, and small arms AA ammunition levels were always higher than Soviet.
- c. Except for rocket tonnage, overall ending (18 July) ammunition inventory levels for both combatants were between 53 percent and 78 percent of initial (4 July) levels.
 - (1) Ending (18 July) tank/AT ammo levels were 30 percent below initial (4 July) levels for the Germans and 41 percent lower for the Soviets.
 - (2) Ending artillery ammo levels were 41 percent below initial for the Germans and 47 percent lower for the Soviets.
 - (3) The 62 percent German drop in onhand rocket inventory tonnage during the KDB campaign was larger than the corresponding Soviet reduction (53 percent).
 - (4) Ending small arms/AA ammo levels were 22 percent below initial for the Germans and 36 percent lower for the Soviets.
- d. Soviet inventories for all ammunition types increased on 15 July

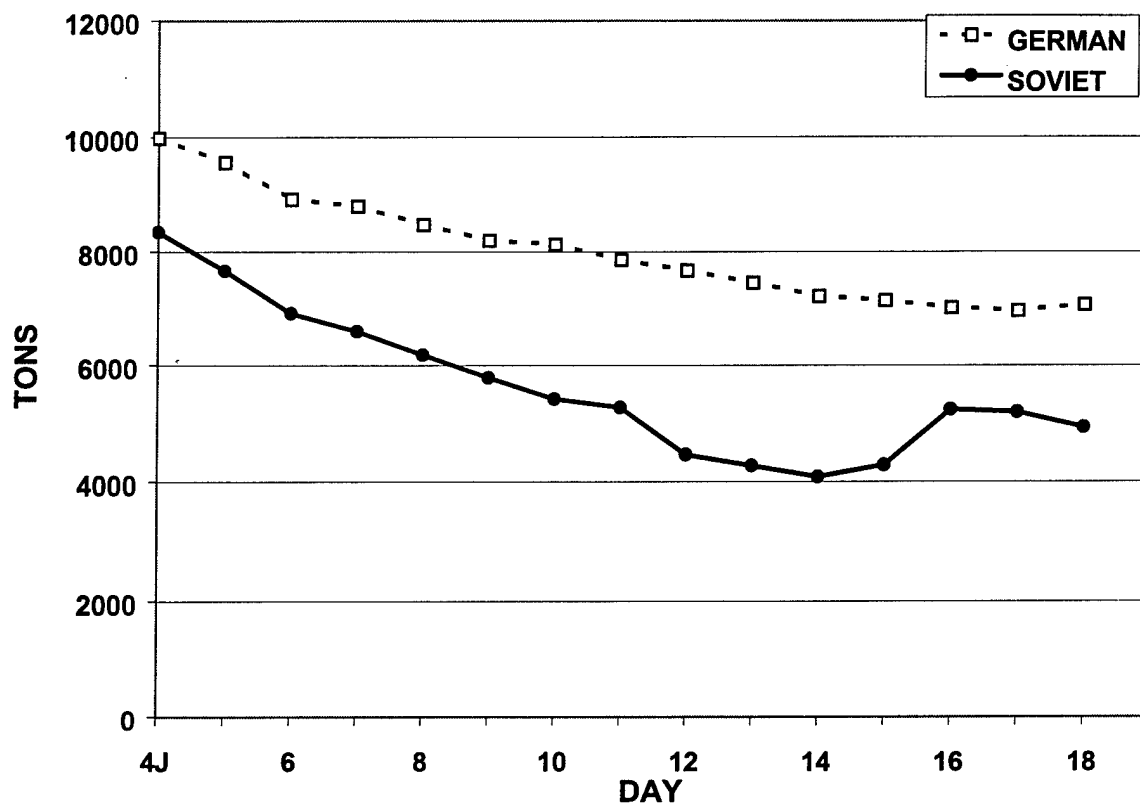


Figure 6-1. Daily Tank/Antitank Ammo Onhand – All Units

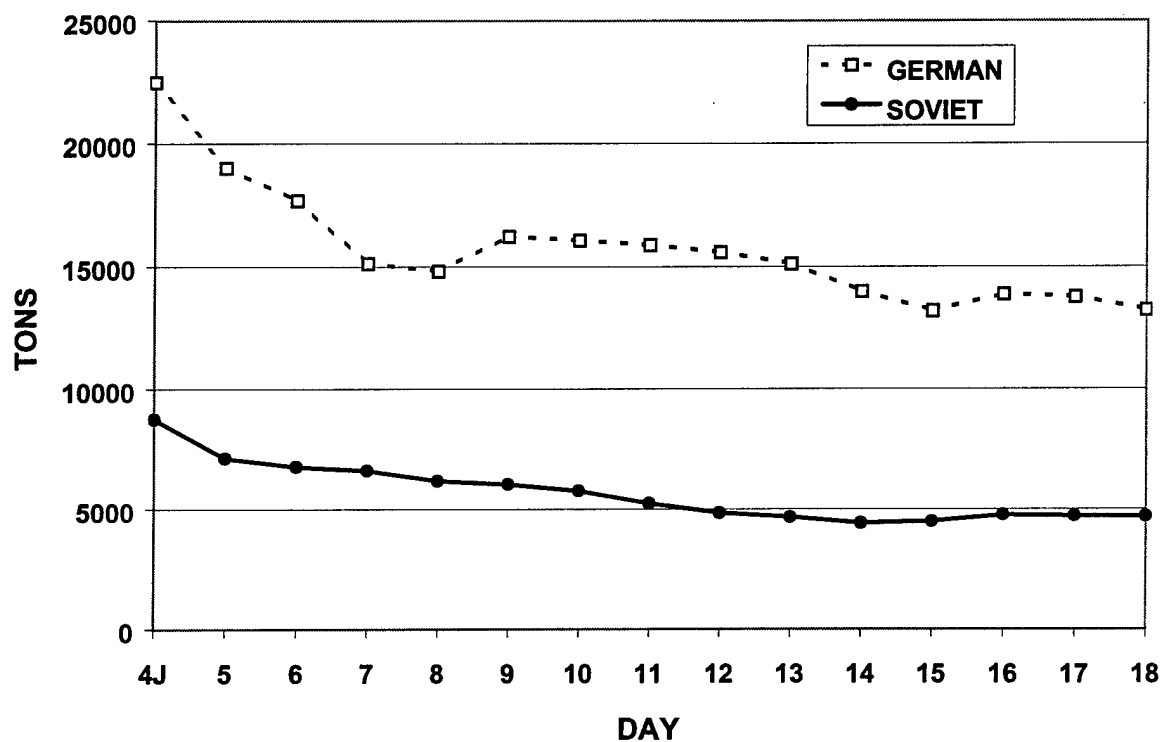


Figure 6-2. Daily Artillery Ammo Onhand – All Units

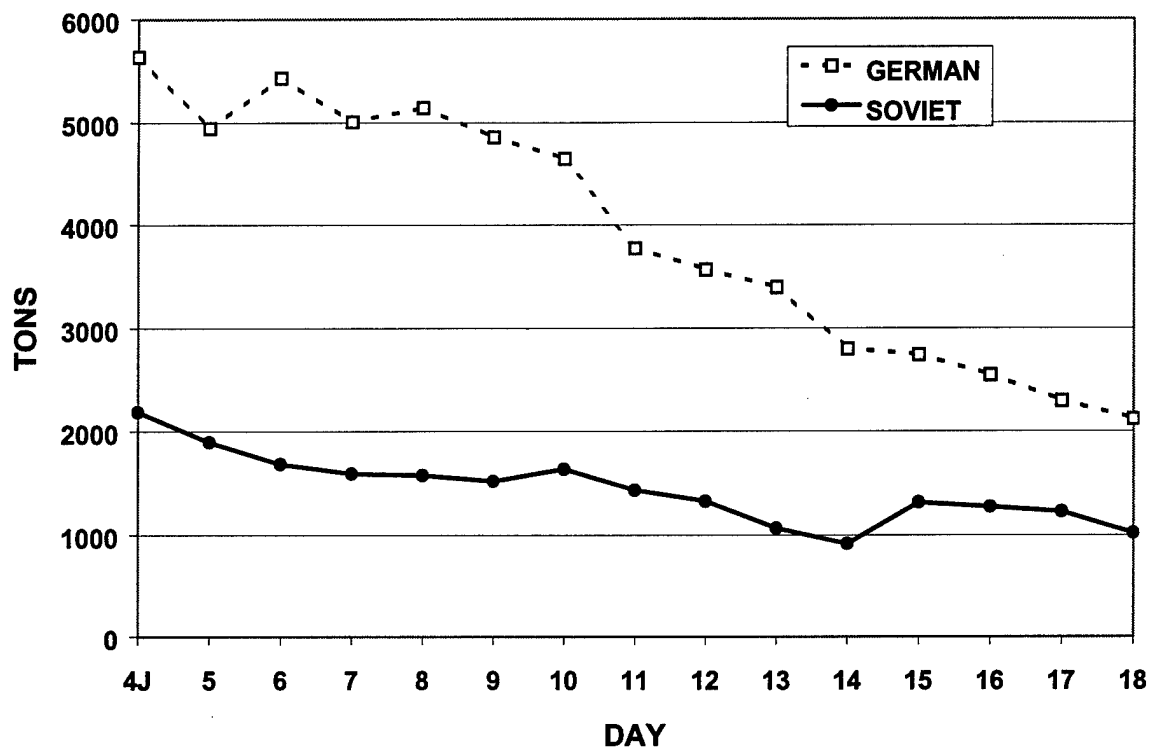


Figure 6-3. Daily Rocket Ammo Onhand – All Units

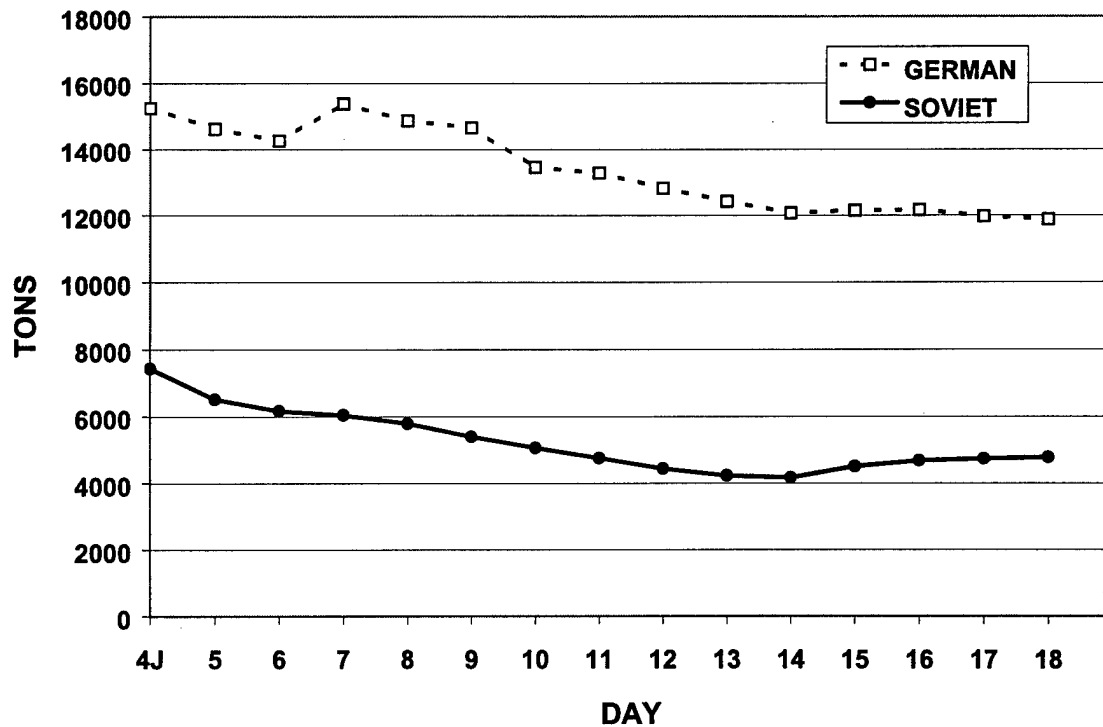


Figure 6-4. Daily Small Arms/AA Ammo Onhand – All Units

6-3. AMMUNITION CONSUMPTION. Figure 6-5 shows total tons of each type of ammunition consumed by each combatant. Figures 6-6 through 6-9 show comparative German and Soviet daily tonnage consumption of tank/AT, artillery, rocket, and small arms/AA ammunition, respectively. Statistics are for the entire force, both headquarters and line units, represented in the KDB. Major observations include:

- a. Over the entire KDB campaign, the Soviets consumed 44 percent more tank/AT ammunition than the Germans. The Germans expended three times the Soviet artillery tonnage, two times the Soviet rocket tonnage, and three times the Soviet small arms/AA tonnage expenditure.
- b. Artillery accounted for the largest portion (49 percent for Germans/35 percent for Soviets) of both forces' ammunition tonnage consumed.
- c. Both German and Soviet tank/AT consumption peaked on 6 and 7 July, when the Germans had the largest proportion of their force in the attack or in hasty defense combat postures. A lesser Soviet consumption peak occurred on 12 July, the day on which the Soviets began their major counterattack.
- d. German artillery consumption peaked on 5 July when they expended almost six times as much tonnage as the Soviets. Soviet artillery expenditures peaked on 12 July. Over the 5-18 July period, the German artillery consumed an average 1,700 tons/day, while the Soviets averaged only 500 tons/day.
- e. German rocket consumption peaked on 11 July at 970 tons. Soviet rocket expenditures peaked on 5 July at 280 tons. Over the 5-18 July period, the German rocket consumption averaged 394 tons/day, much more than the Soviet average of only 160 tons/day.
- f. German small arms/AA consumption peaked on 7 July at 2648 tons. Soviet small arms/AA expenditures peaked on 12 July at 695 tons. Average daily German and Soviet expenditures were 1063 and 364 tons, respectively.

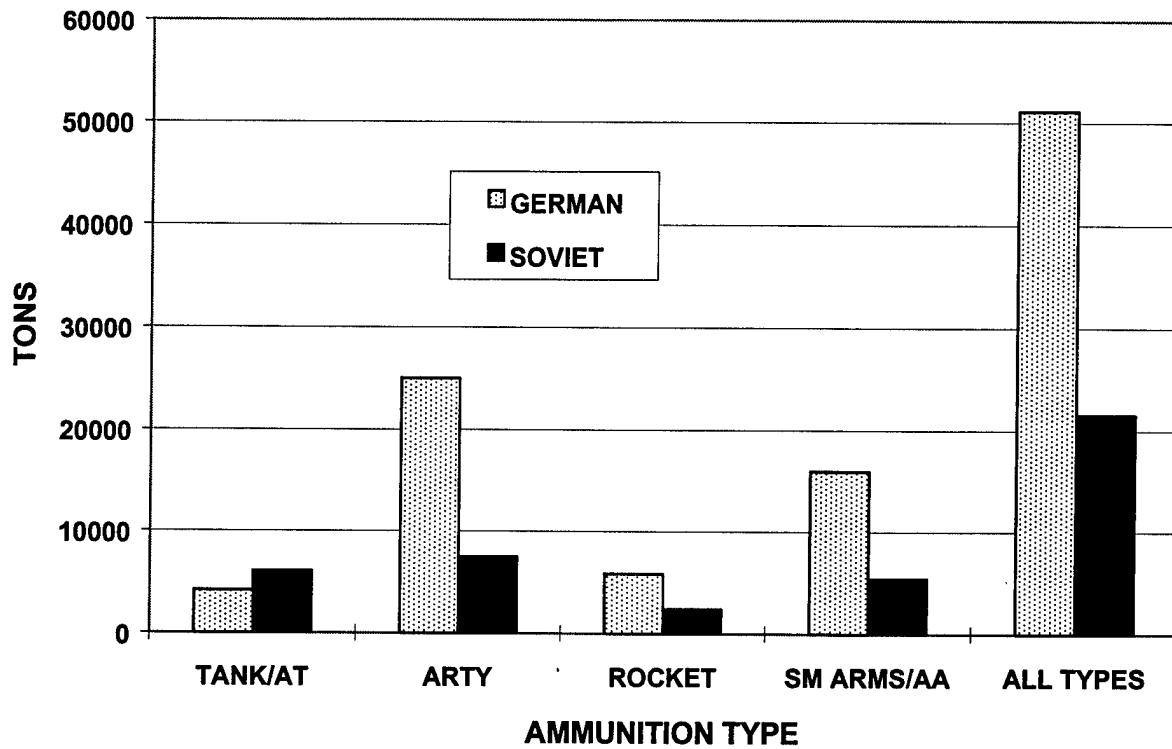


Figure 6-5. Total Ammunition Used by Type – All Units

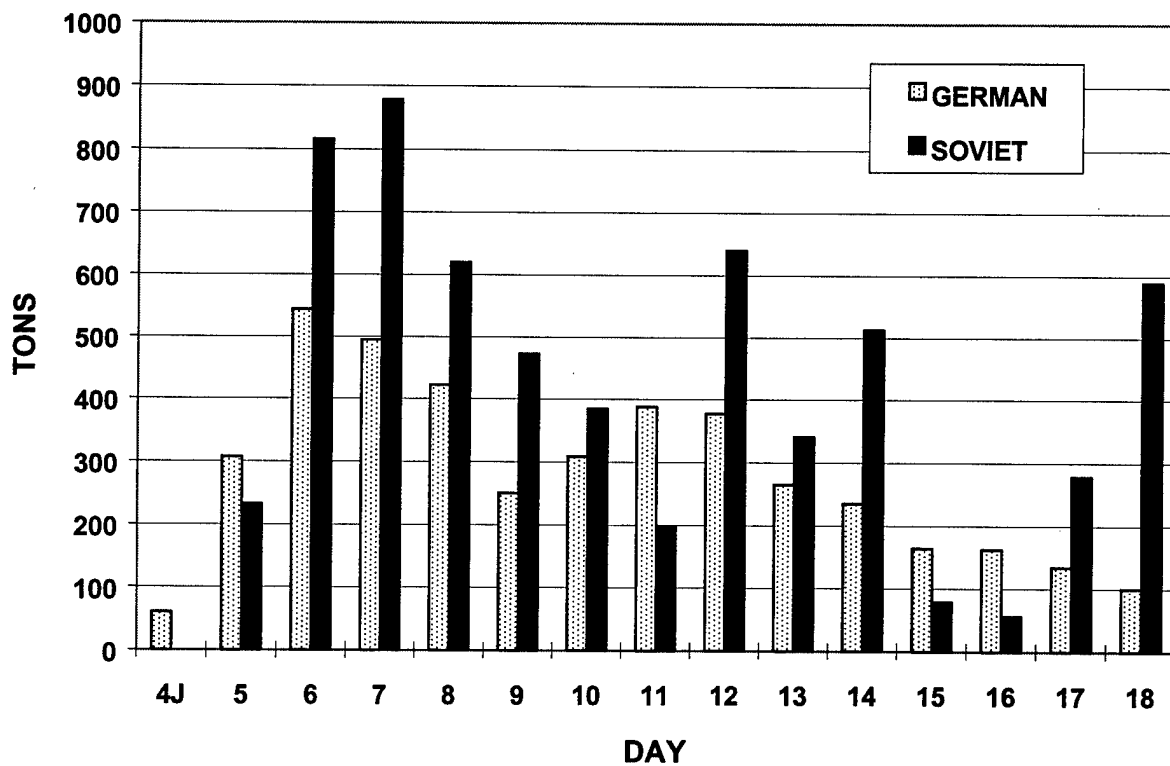


Figure 6-6. Daily Tank/Antitank Ammo Consumed – All Units

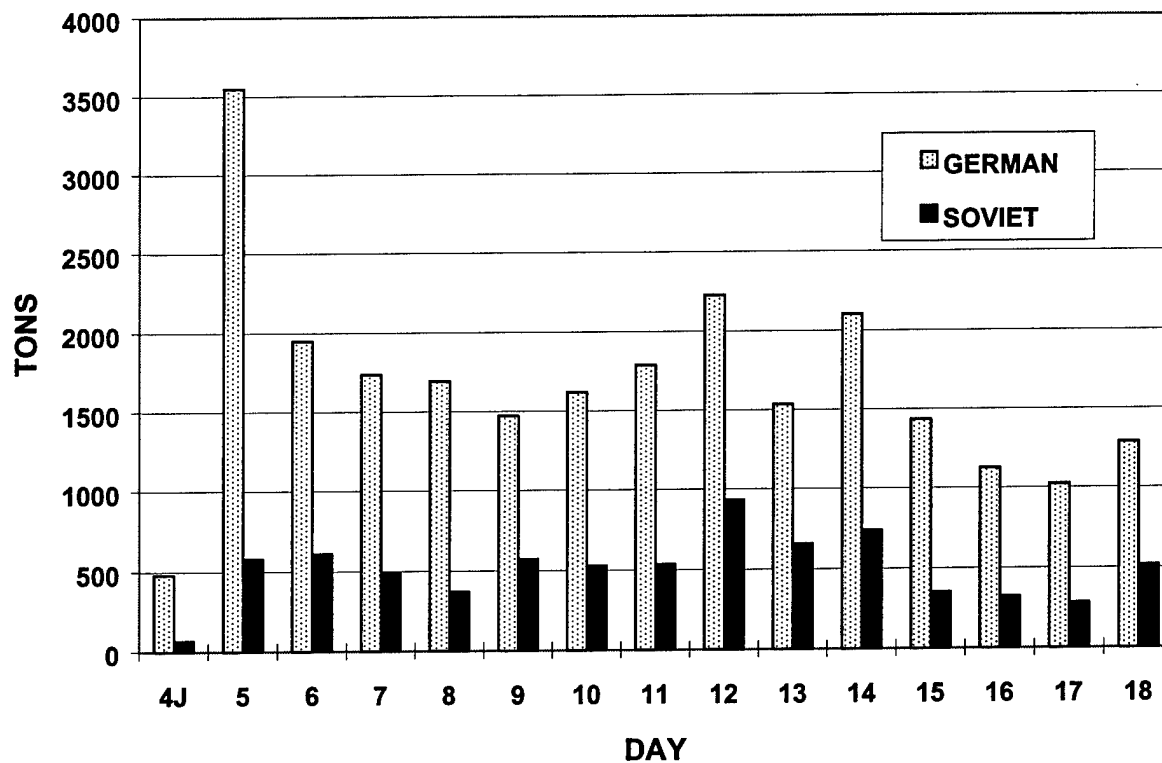


Figure 6-7. Daily Artillery Ammo Consumed – All Units

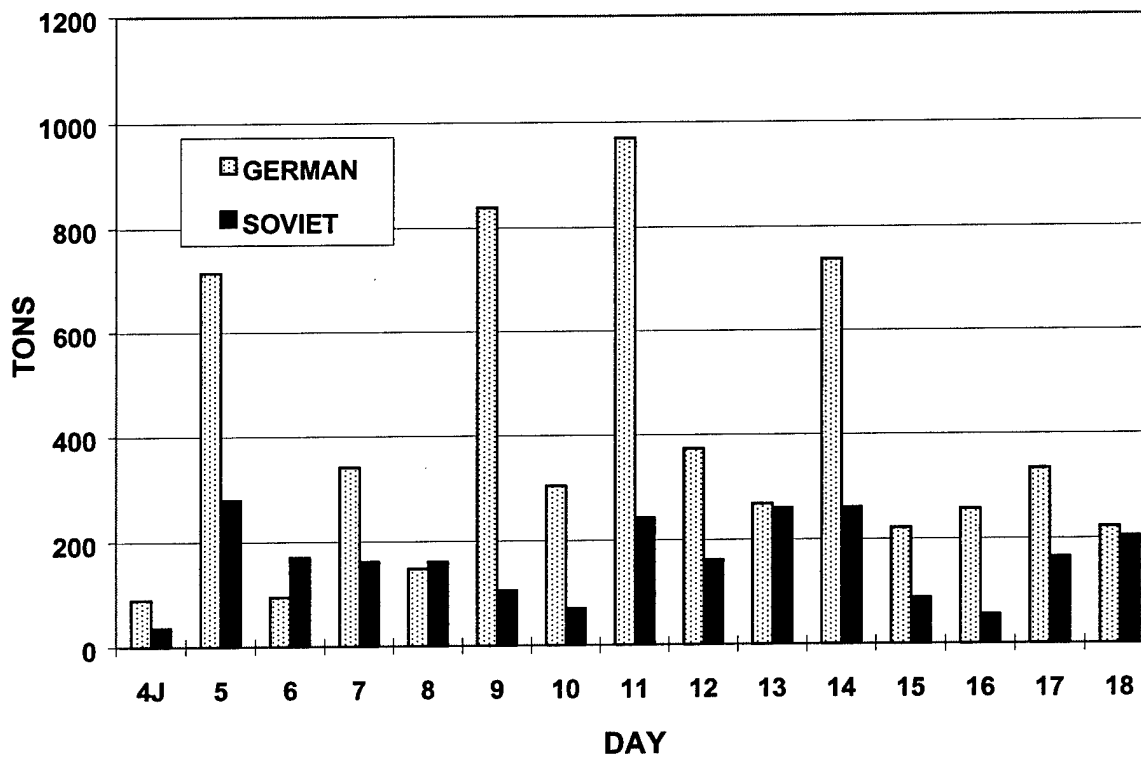


Figure 6-8. Daily Rocket Ammo Consumed – All Units

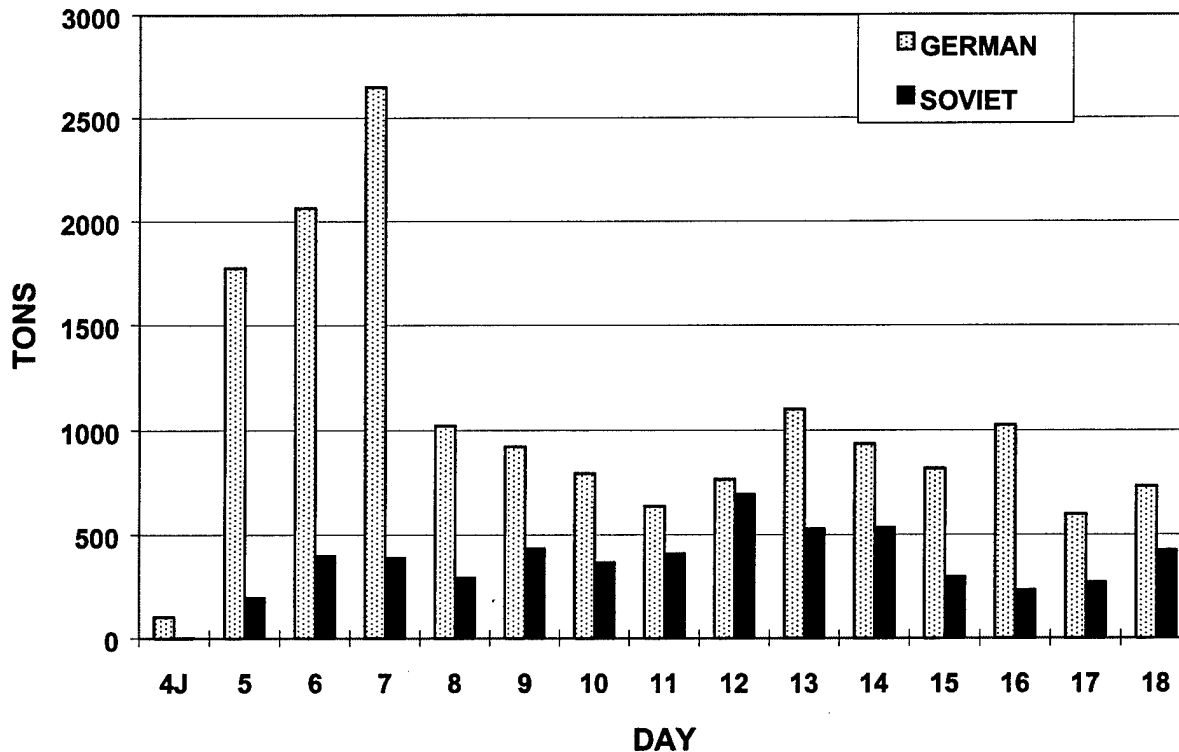


Figure 6-9. Daily Small Arms/AA Ammo Consumed – All Units

6-4. SUMMARY OBSERVATIONS

a. Artillery and small arms/AA accounted for the majority (71 percent) of initial German inventory tonnage, while artillery and tank/AT ammo comprised most (64 percent) of the initial Soviet tonnage. German daily onhand tank/AT, artillery, rocket, and small arms AA ammunition inventory levels were always higher than Soviet.

b. Over the entire KDB campaign, the Soviets consumed 44 percent more tank/AT ammunition than the Germans. The Germans expended three times the Soviet artillery tonnage, two times the Soviet rocket tonnage, and three times the Soviet small arms/AA tonnage expenditure.

c. Artillery accounted for the largest portion (49 percent for Germans/35 percent for Soviets) of both forces' ammunition tonnage consumed.

CHAPTER 7

AIRCRAFT SORTIE STATISTICS

7-1. INTRODUCTION. This chapter presents statistics on Soviet and German aircraft sortie activity during the KDB campaign. The KDB records a daily listing of the number of sorties generated for each aircraft type/mission type combination. Neither numbers of onhand aircraft, armament delivered, nor specific targets attacked are comprehensively recorded in the KDB. Therefore, only total daily air sorties are summarized here according to armed combat roles (attack, bombing, or air-to-air) as well as unarmed roles (reconnaissance, evacuation). Each aircraft sortie was assigned only one role. The attack role applies to air attack against specific tactical targets, much like contemporary close air support. The bombing role applies to attacks against less specific area targets, similar to contemporary interdiction. Except for eight Soviet sorties in missions categorized as "special" in the KDB, all aircraft sorties recorded in the KDB are summarized in this chapter.

7-2. AIRCRAFT TYPES AND ROLES. Table 7-1 shows the types of German aircraft assigned to each role, and Table 7-2 shows the types of Soviet aircraft assigned to each role. No Soviet evacuation sorties are recorded in the KDB.

Table 7-1. German Aircraft Types and Roles

Role	AC type
Ground attack	Fw-190
	Hs-129
	Ju-87
Bombing	Ar-66
	He-111
	Ju-88
	Ju-87
Air-to-air	Me-109
Recon	Fw-189
	Hs-126
Evacuation	Ju-52
	Storch

Table 7-2 Soviet Aircraft Types and Roles

Role	AC type
Ground attack	Il-2
Bombing	Boston DB-3 Il-2 Pe-2 Po-2 R-5
Air-to-air	La-5 Yak-1 Yak-7 Yak-9
Recon	Boston DB-3 Il-2 La-5 Pe-2 Po-2 R-5 Yak-1 Yak-7

7-3. SORTIE ACTIVITY

a. Total Sorties. Figure 7-1 shows total sorties generated in each role during the KDB campaign. The column labeled "ALL" is the sum of plotted sortie totals in the five roles and includes all KDB sorties except for eight Soviet sorties categorized as "special." Summary observations include:

- (1) The Germans generated slightly more total sorties than the Soviets.
- (2) The roles with the most sorties were ground attack for the Germans and air-to-air for the Soviets, which accounted for 48 percent of each combatant's total sorties. The Germans generated over twice as many ground attack sorties as the Soviets, but the Soviets had twice as many air-to-air sorties as the Germans.
- (3) Both combatants had about 4,000 bombing sorties (3,800 German, 4,500 Soviet).
- (4) There were 1,400 German evacuation sorties, but none for the Soviets.

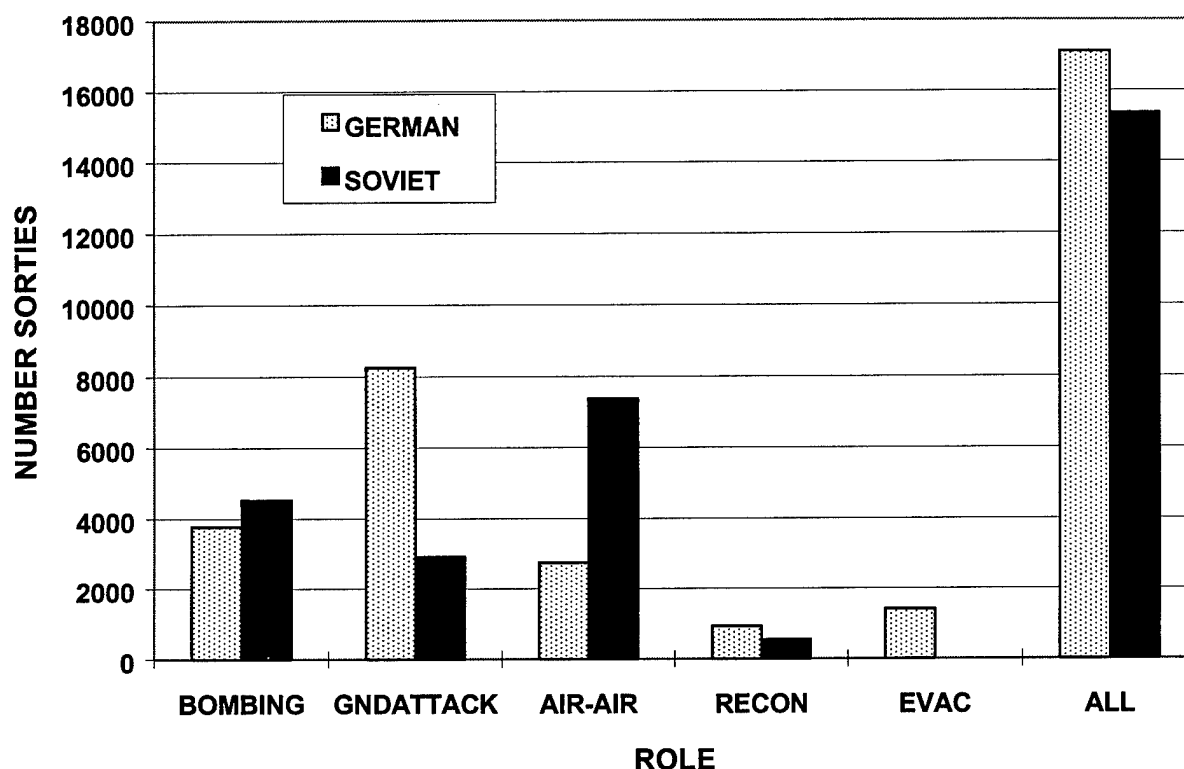


Figure 7-1. Total Sorties in Each Aircraft Role

b. Air-to-ground Sorties. Figure 7-2 shows cumulative air-to-ground sorties for both combatants on each day of the KDB campaign. Figure 7-3 shows the daily number of air-to-ground sorties generated by each combatant and further partitions these between the ground attack role and the bombing role. Major observations include:

(1) The peak daily German air-ground effort (1,942 sorties) was on 5 July, but German air-ground activity from 5 July through 9 was very high (7,509 total sorties), accounting for 62 percent of all German air-ground sorties. Daily Soviet air-ground sorties peaked (704 sorties) on 14 July.

(2) The Soviet air-ground activity exceeded German activity only during 12-13 July and 16-18 July. These supported the Soviet ground counteroffensive surges of 12 July and 18 July.

(3) Except for 15 July and 18 July, the majority of daily German air-to-ground sorties were in the ground attack role. Except for 5, 8, and 9 July, the majority of Soviet air-to-ground sorties were in the bombing role.

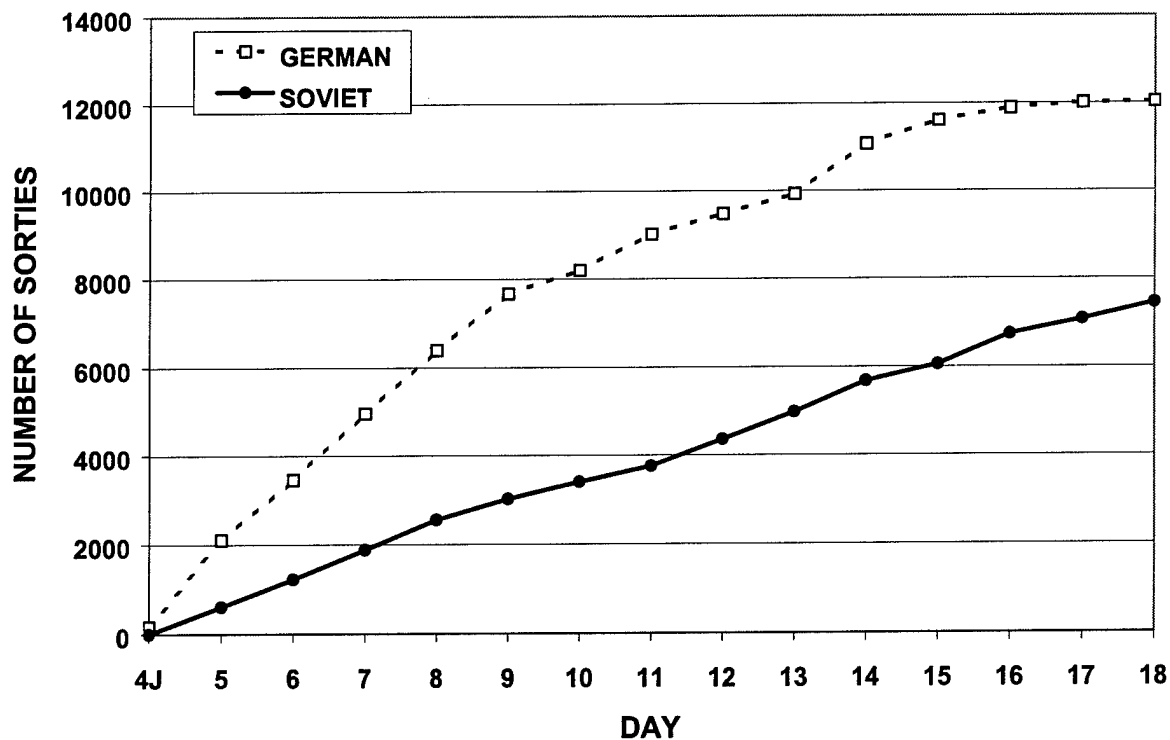


Figure 7-2. Cumulative Air-to-ground Sorties

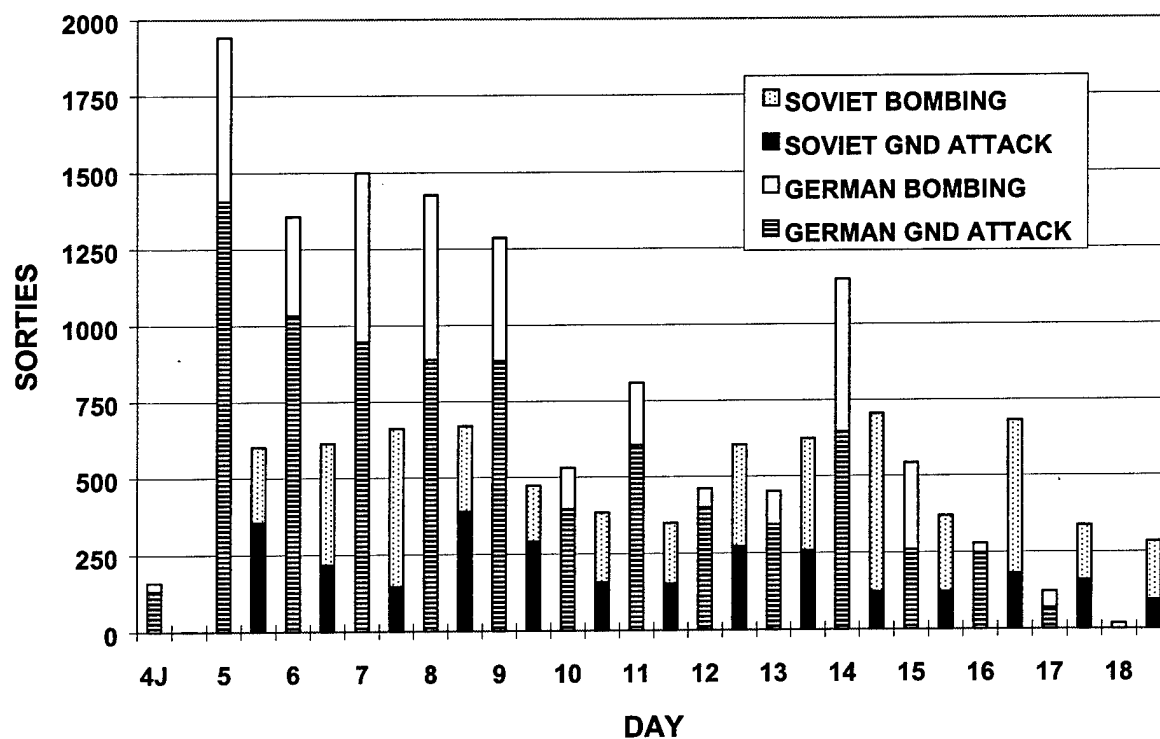


Figure 7-3. Daily Air-to-ground Attack Sorties

c. **Air-to-air Sorties.** Figure 7-4 shows cumulative air-to-air sorties for both combatants on each day of the KDB campaign. Figure 7-5 shows the daily number of air-to-air sorties generated by each combatant. Major observations include:

(1) The peak daily air-to-air activity for both combatants was on 5 July. Responding to the heavy German air attacks of 5-9 July, Soviet air-to-air activity from 5 July through 8 July was very high (3,408 total sorties), accounting for 46 percent of all Soviet air-to-air sorties.

(2) The day-to-day variation in Soviet air-to-air activity was similar to the day-to-day variation in German air-to-ground activity (Figure 7-3).

(3) The Soviet air-to-air activity always exceeded German air-to-air activity. Except for 3 days (9, 13, and 15 July), the Soviets generated over twice as many air-to-air sorties as the Germans.

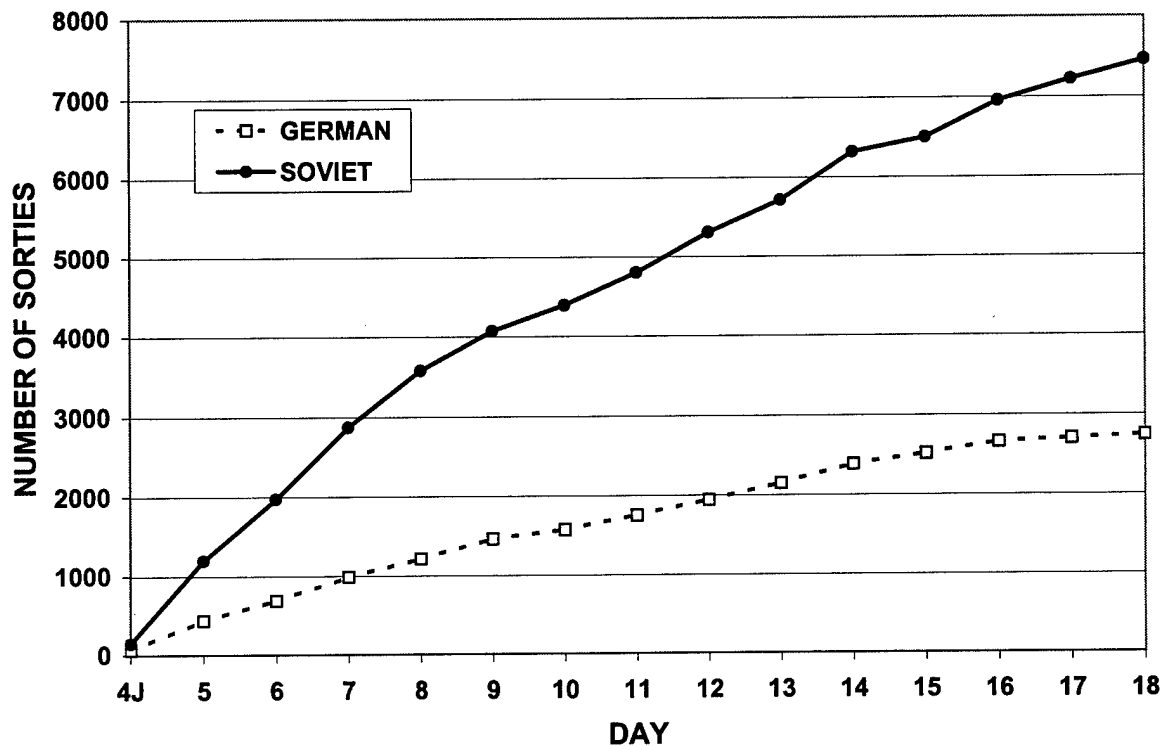


Figure 7-4. Cumulative Air-to-air Sorties

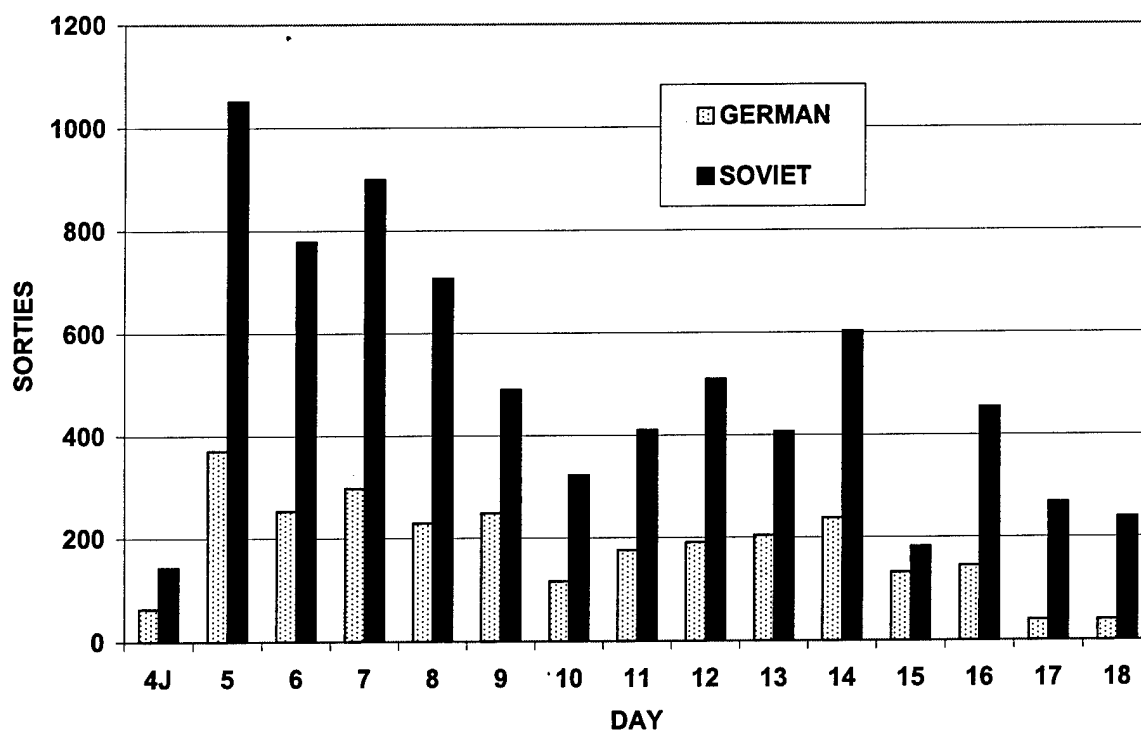


Figure 7-5. Daily Air-to-air Sorties

d. Reconnaissance and Evacuation Sorties. Figure 7-6 shows daily unarmed reconnaissance sorties by both combatants. Figure 7-7 shows daily German evacuation sorties. There were no Soviet evacuation sorties. Major observations include:

(1) The peak daily German reconnaissance activity (99 sorties) was on 9 July. The peak daily Soviet reconnaissance activity (71 sorties) was on 10 July.

(2) Daily Soviet air reconnaissance activity was very low from 4-7 July, picked up sharply (from 14 to 62 sorties) on 8 July, and, except for a sharp drop on 11 July, gradually decreased to a very low level (13 sorties) by 18 July.

(3) Daily German air reconnaissance activity was nil on 4 July, rose sharply (to 74 sorties) on 5 July, maintained high activity through 9 July, and then, except for high activity levels on 14 and 16 July, generally decreased to around 40 sorties by 18 July.

(4) German air reconnaissance activity was usually higher than Soviet. The exceptions were on 4 July, just before the German attack, and on 10, 12, 13, and 15 July.

(5) Daily German air evacuations peaked at 138 sorties on 6 July. Highest air evacuation activity levels occurred on 6-9 July, immediately after the beginning of the German attack, and 13-15 July, immediately after the beginning of the Soviet counterattack.

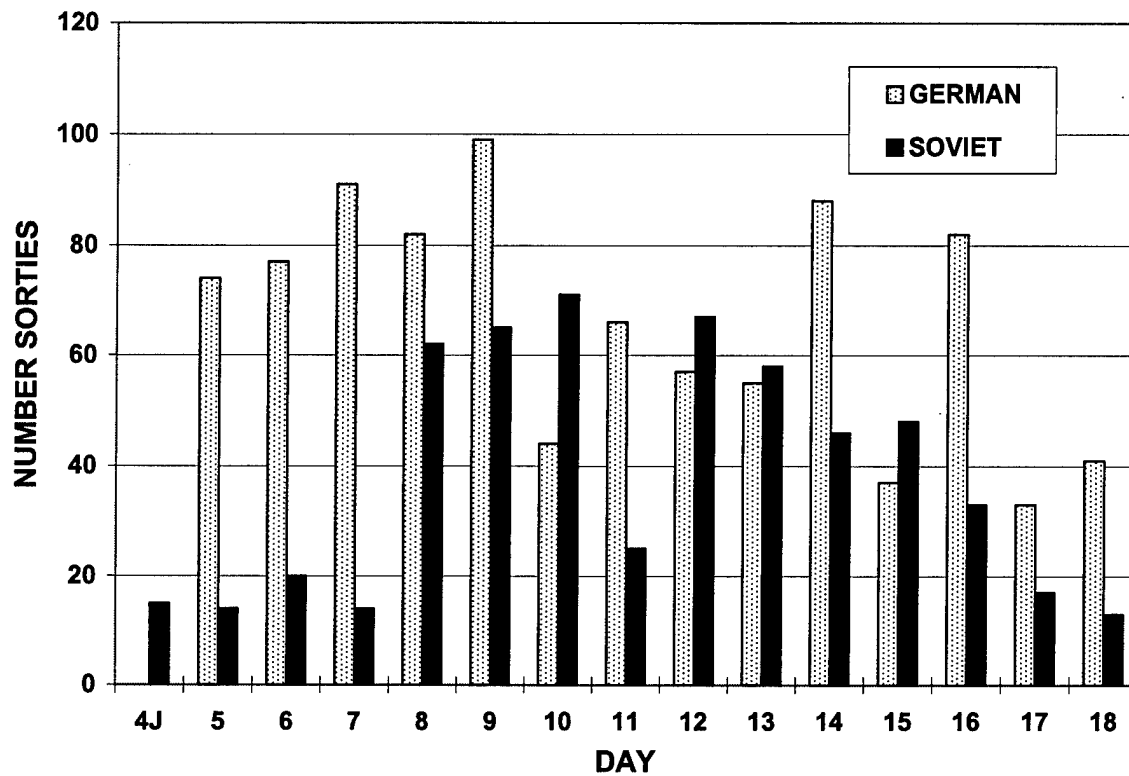


Figure 7-6. Daily Reconnaissance Sorties

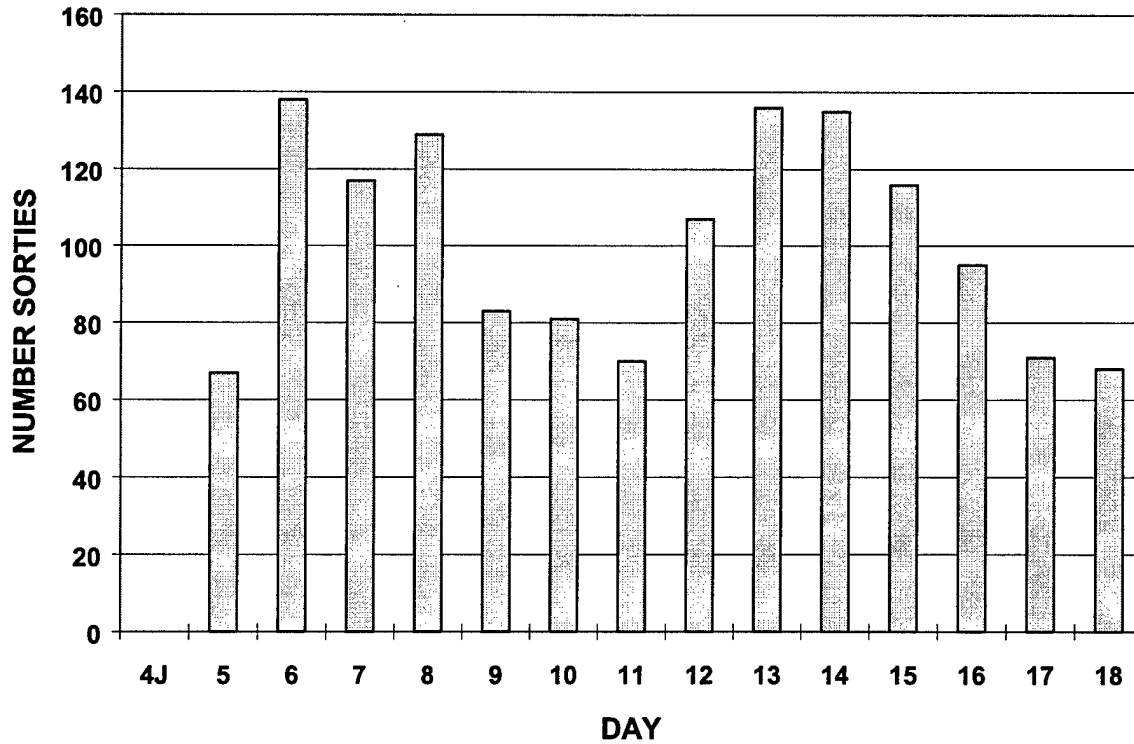


Figure 7-7. Daily German Evacuation Sorties

7-4. SUMMARY OBSERVATIONS

7-4. SUMMARY OBSERVATIONS

a. The Germans generated more total sorties than the Soviets. The roles with the most sorties were ground attack for the Germans and air-to-air for the Soviets, which accounted for almost half of each combatant's total sorties.

b. On most days, German air-to-ground activity exceeded Soviet activity. Most German air-to-ground sorties were in the ground attack role, while the majority of Soviet air-to-ground sorties were in the (area) bombing role.

c. Soviet air-to-air activity always exceeded German air-to-air activity. The day-to-day variation in Soviet air-to-air activity was similar to the day-to-day variation in German air-to-ground activity.

d. German air reconnaissance activity was usually higher than Soviet.

CHAPTER 8

GEOGRAPHIC UNIT POSITIONS AND PROGRESS

8-1. INTRODUCTION. This chapter presents charts of average German progress during the campaign, along with charts containing digitized geographic overlays of individual unit positions, with personnel and tank attrition results for individual units attached to the overlays in a geographically correlated format. Unit positions were calculated from data in the unit location file of the KDB. Daily unit positions recorded for German and Soviet units in the KDB are listed in Appendix L. Unit locations in the KDB are represented as a set of (up to 18) reference point locations associated with that unit. The unit position was computed as the arithmetic average of all of that unit's reference point locations in the KDB, excluding the unit HQ (which usually lay to the rear of the other unit points).

8-2. AVERAGE GERMAN FORCE PROGRESS. Figure 8-1 shows the daily cumulative (since 4 July) average and maximum northbound progress, in km, of the German line units in contact with the enemy. Figure 8-2 shows the daily change (from the previous day) in both average and maximum northbound progress.

a. Methodology. On each day, the cumulative average northbound progress is calculated as the arithmetic average, over the German line units, of the change in latitude (expressed in km), since 4 July, of each unit location. The cumulative maximum northbound progress on a day is computed, in km, as the largest change in latitude, since 4 July, over the German line unit positions on that day. It is the largest northbound movement, since 4 July, made by a single German unit, as opposed to the average movement over the line units. On the chart, the short unit ID of the German unit with largest northbound movement (since 4 July) on a day is printed above the bar graph for that day.

b. Summary Results

(1) Cumulative Progress. Both average and maximum progress peaked on 16 July when 7 Pz Division had advanced 46 km north of its initial position, while overall average progress along the German front was 21 km. Cumulative average German progress increased steadily until 16 July and then leveled off through 18 July. Maximum progress declined from 46 km to 41 km on 18 July when 7 Pz Division shifted position.

(2) Daily Change in Progress. Figure 8-2 shows the daily change (from the previous day) in both average and maximum German northbound advance. Northbound advance is a suitable measure of progress because the primary German objective was a northward advance toward Kursk. Average German northbound progress increased every day, except for 17 July, but daily changes after 13 July were less than 1 km. The largest single day gain in average progress was 3.3 km on 8 July. The largest changes in maximum northbound progress were gains of 9 km on 7 July and 8 km on 10 July. These two days accounted for almost 40 percent of the maximum German northbound progress over the entire KDB campaign.

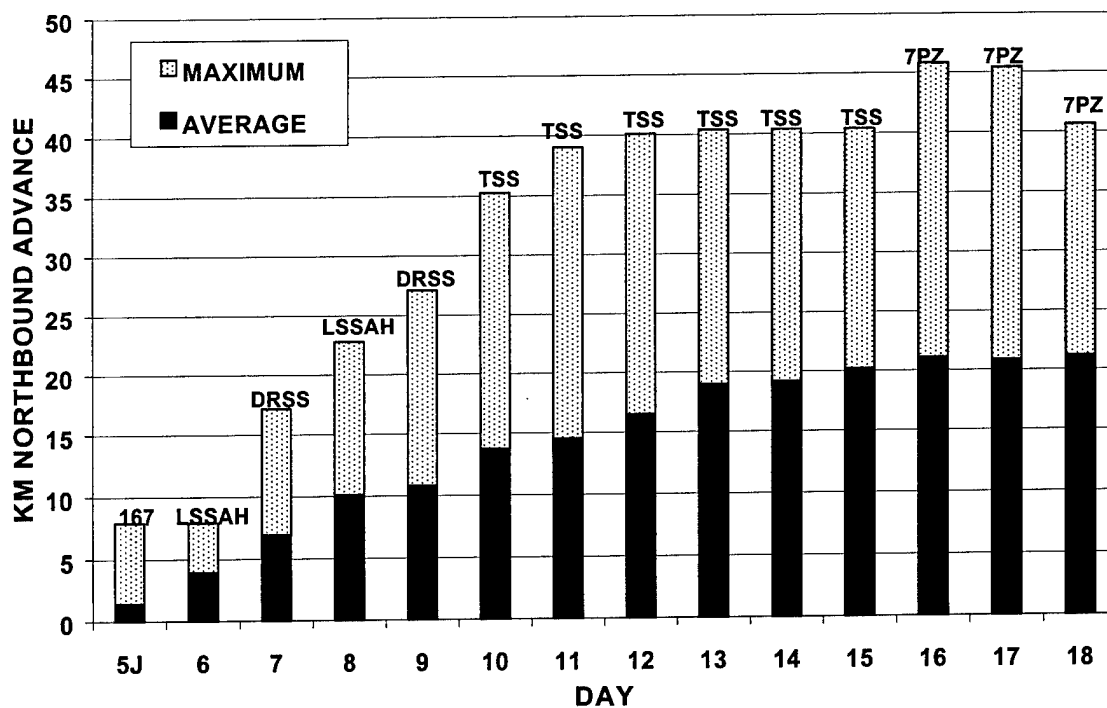


Figure 8-1. Cumulative German Northbound Progress Since 4 July

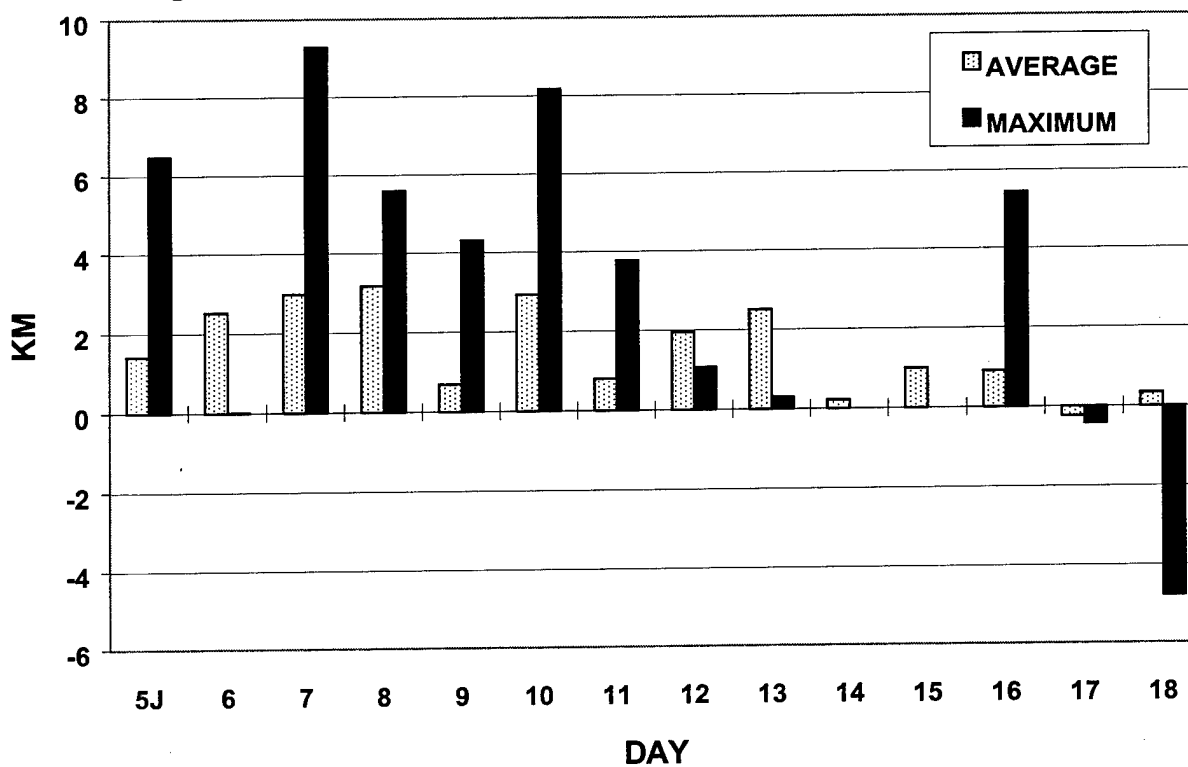


Figure 8-2. Daily Change in German Average Progress/Maximum Progress

8-3. PROGRESS OF GERMAN FORWARD POSITIONS. In this report, the locations of the single northernmost German reference point in the line units on a specified day are treated and denoted as the forward edge of the battle area (FEBA) of the German force on that day. Lines connecting the points comprising this German FEBA for 4, 8, 12, and 18 July are shown on a digitized map (circa 1993) of the Kursk area in Figure 8-3, which was constructed using the US Army's Terrain Evaluation Module. The figure shows that most of the advance during the campaign had been achieved by 8 July. The German movements toward the northwest on 9-12 July and toward the northeast on 12-18 July are apparent in the map.

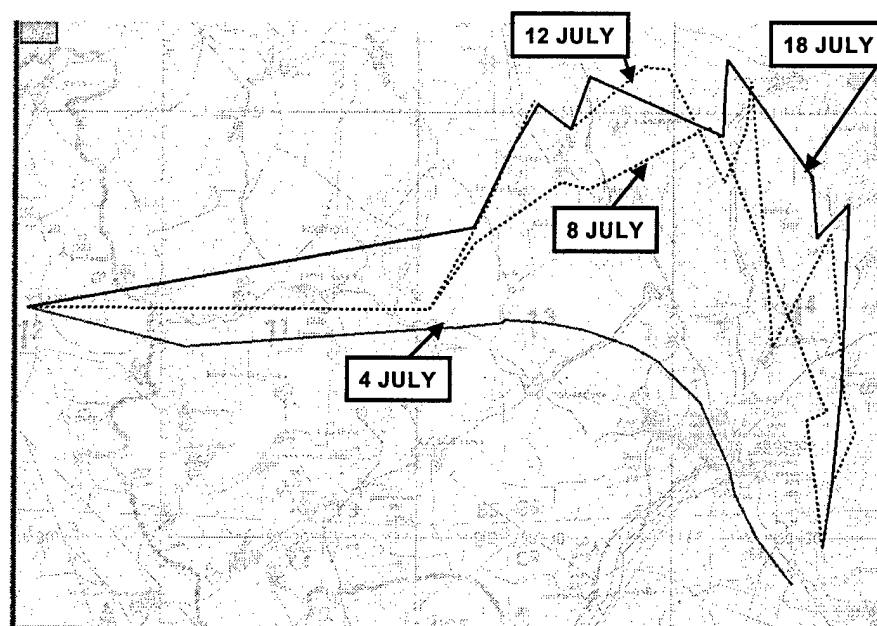


Figure 8-3. German FEBA Progress

8-4. GEOGRAPHIC REPRESENTATION OF UNIT POSITIONS AND ATTRITION.

Figure 3-5 showed a TEM-generated digitized map plot of German and Soviet line unit positions on 4 July. Arrows drawn on that map indicate the path of the primary German advance. Figures 8-4 through 8-7 were created using a combination of TEM and Microsoft Excel. As in Figure 3-5, Soviet unit symbols are drawn with a double line box boundary, while German unit symbols have only a single line box boundary. The abbreviated unit name is printed to the lower left of the associated unit symbol. The abbreviated unit name is from the short unit IDs listed in Tables 3-1 and 3-2. The figures show unit positions, along with unit personnel casualty rates and unit tank losses, on 5 July, 8 July, 12 July, and 18 July. These figures are denoted herein as "geographs." Geographs enable a spatial as well as quantitative view of losses over units on a day. Along with unit positions on the specified day, each geograph also shows a line through the unit positions on the previous day. Arrows are also drawn along the German advance. In these geographs, a small scatter plot is drawn above each map which shows, for each plotted circle (Soviet) or square (German), the casualty rate (combat casualties/1,000 men) on that day for a unit on the map which lies on a vertical line through the plotted circle/square. Analogously, a scatter plot is drawn below each map, showing, for each plotted circle (Soviet), or square (German), the number of tanks destroyed (including abandoned) on that day for a unit on the map lying on a vertical line through the plotted circle/square. For example, the left plotted circle

in each scatter plot in Figure 8-4 plots losses in the Soviet 237 RD, the leftmost Soviet unit on the map, while the leftmost black square plots losses for German 57 ID, the leftmost German unit on the map. Bar graphs to the right of the map show total combat casualties and tanks lost (destroyed + abandoned) for the total force, as well as the average combat casualty rate over all engaged line units which had combat casualties that day. Battle summary narratives describing, in present tense, combat events and statistics associated with each geograph are given below. Unit postures noted in these narratives are those recorded in the KDB on that day.

a. 5 July Geograph (Figure 8-4)

(1) **Combat Postures/Dispositions.** German 168 ID, 255 ID, and 57 ID are in prepared defenses. The 198th ID has not yet entered the theater. All other German line units are attacking. Only one Soviet unit (213 RD) is attacking.

(2) **Progress.** Only German 48 Pz Corps makes significant progress, but it incurs 16 of the 23 total German tank losses while destroying 28 tanks in 67 Gds RD. The most forward German unit, which also makes the greatest northernmost progress (8 km), is 167 ID in 48 Pz Corps.

(3) **Tank Losses.** Total Soviet tanks lost (86) are almost 4 times German losses (23). The 2 SS Pz Corps destroys 25 tanks in 52 Gds RD while losing only 2 tanks. Most Soviet tank losses (53) are M-3 tanks in 57 Gds RD and 67 Gds RD. The 167 Tank Rgt, attached to 25 Gds Rifle Corps, loses 26 T-34s. The 14 destroyed Pz V tanks in Gross Deutschland PzGrD (GDPZ) account for the majority of German losses. Recorded as damaged in action today are 179 German tanks and only 19 Soviet tanks.

(4) **Personnel Losses.** Total German and Soviet casualties are similar, but since 62 percent of the full Soviet force is not in contact with the enemy, Soviet casualty rates in engaged units are much higher than German. German 48 Pz Corps inflicts massive casualties on 71 Gds RD and 67 Gds RD, which lose over 10 percent of personnel. The Soviet unit with worst casualties is 78 Gds RD, on the Soviet left, which loses almost 20 percent of its personnel. Highest German casualty rates are on the right flank in 106 ID and 320 ID, which lose 6 percent and 8 percent of personnel, respectively.

b. 8 July Geograph (Figure 8-5)

(1) **Combat Postures/Dispositions.** The far German left is unchanged, with 255 ID assuming a hasty defense posture today after 2 days attacking. German 57 ID, 167 ID, and 320 ID are in prepared defenses. Localized Soviet counterattacks force Das Reich SS PzGrD (DRSS), Totenkopf SS PzGrD (TSS), and 7 PzD to shift into hasty defense today. Nine German line units are attacking. The German 198th ID is not on line yet. Much Soviet armor (31 Tank Corps, 192 Tank Bde, 86 Tank Bde, 10 Tank Corps, 2 Gds Tank Corps, 5 Gds Tank Corps) has moved up to stop the advance of 2 SS Pz Corps. Soviet 6 Tank Corps has moved up to stop 48th Pz Corps. Soviet 5 Gds Tank Corps, 2 Gds Tank Corps, and 15 Gds RD have begun counterattacking. All other Soviet line units are in defensive postures.

(2) Progress. German 48 Pz Corps and 2 SS Pz Corps have made significant advances, with northbound progress of 5.3 km (11 PzD) and 7.8 km (Leibstandarte SS, also denoted as LSSAH) during the day. In 3 Pz Corps, both 6 PzD and 7 PzD have advanced 6-7 km north during the day. Largest northward progress since 4 July was made by Das Reich (22 km) and Leibstandarte SS (23 km), which is the most forward unit of the force. Average northward progress of the entire German force is 3 km for the day and 10 km since 4 July.

(3) Tank Losses. Four Soviet units (3 MC, 31 TC, 6 TC, and 5 Gds TC) account for 194 of the total Soviet tank losses (215), which is much greater than the German loss total (16). Most of the German losses are Pz III (seven) and Pz IV (five). Most of the Soviet losses (159) are T-34 tanks. Heaviest German tank losses are in Das Reich, which loses six tanks. Highest Soviet tank losses (64) are in 3 Mech Corps (3MC). Recorded as damaged in action today are 93 German tanks and 100 Soviet tanks.

(4) Personnel Losses. Total Soviet combat casualties (9,400) are over 3 times German (2,800). Highest German casualty rates are on the right flank in 19 Pz D and 7 Pz D, which lose 2 percent of personnel. Highest Soviet casualty rates are in 52 Gds RD and 67 Gds RD, which lose over 10 percent of personnel

c. 12 July Geograph (Figure 8-6)

(1) Combat Postures/Dispositions. Many Soviet line units (25 of 48) are counter-attacking today, most of them concentrated to stop the 48 Pz Corps and 2 SS Pz Corps in the center. All other online Soviet units are in defense postures, most (15) in hasty defense. Most of the counterattacking Soviet units (21 of 25) are forced into hasty defense postures by 14 July. German 198 ID came on line on 10 July. The German 167 ID, 255 ID, 320 ID, and 57 ID are in prepared defenses. Das Reich and Grossdeutschland (GDPZ) are forced in hasty defense. All other German line units are attacking.

(2) Progress. German 48 Pz Corps and 2 SS Pz Corps have made progress since 8 July, but their advance has stalled, with 11PzD and Totenkopf SS in the lead. Recent progress has been made on the German right by 6 Pz D, which has moved 11.4 km farther north in 1 day but is surrounded by Soviet units. Although average northward progress for the day for the entire German force is 2 km, four German units (57 ID, 3 PzD, 198 ID, GDPZ) moved an average 2 km south today. The largest northward advances since July 8 were made by Totenkopf SS (30 km) and 6 PzD (22 km). Average German northward progress since 4 July is 16.5 km. Largest northward progress since 4 July was made by Totenkopf SS (40 km) and 11 PzD (32 km), which is the most forward unit of the force. The German line will advance no farther north after today, with 11 PzD and Totenkopf SS holding the northernmost positions through 18 July.

(3) Tank Losses. Total Soviet tank losses (204) are over 20 times German (9). The vast majority of today's tank conflicts are near Prokhorovka, where the counterattacking Soviet 29 Tank Corps, 18 Tank Corps, and 2 Gds Tank Corps lose a total of 144 tanks against

Leibstandarte SS, Totenkopf SS, and Das Reich, which lose a total of 6 tanks (4 Pz III and 5 Pz IV). Highest Soviet tank losses (88) are in 29 Tank Corps, which loses 60 T-34s and 28 T-70s. Highest German tank losses (four) are in Leibstandarte SS. Most of the Soviet losses are T-34s (119), T-70 (61), and MK-4 Churchill (13). Recorded as damaged in action today are 89 German tanks and 210 Soviet tanks.

(4) Personnel Losses. Total Soviet combat casualties (19,400) are almost 8 times the German total (2,450). Soviet casualties are very high on their left flank, with 270 RD and 73 Gds RD losing over 15 percent of personnel. The Soviet unit with the worst losses (28 percent) is 184 RD. Highest German casualty rates are in the center, with 167 ID losing 3 percent of personnel and Leibstandarte SS losing 2 percent.

d. 18 July Geograph (Figure 8-7)

(1) Combat Postures/Dispositions. All German units have been in defensive postures since 17 July. The last German unit to cease attacks was 7 PzD, which moved northwest into defensive posture on 17 July under 48 Pz Army. Combat intensity has fallen sharply since 12 July. The Soviet counteroffensive resumes today, with 11 line units attacking (up from only 2 attackers on 17 July).

(2) Progress. German 48 Pz Corps and 2 SS Pz Corps have been stalled since 12 July, with 11 PzD and Totenkopf SS continually holding the northernmost positions. 3 Pz Corps has made progress, with 19 PzD advancing 19 km north on the right flank since 12 July. Although the northernmost German unit is 11 PzD, the German unit with greatest northward progress (41 km) since 4 July is 7 PzD. Only three German units (11 PzD, DRSS, and LSSAH) are farther south (by less than 3 km) on 18 July than on 12 July. Average northward progress of the entire German force is 0.3 km for the day and 21 km since 4 July.

(3) Tank Losses. Total Soviet tank losses of 27 are light, but no German losses are reported. Almost all Soviet losses are T-34 (18) and T-70 (8). Soviet tank losses are concentrated in 18 Tank Corps, 29 Tank Corps, 2 Tank Corps, and 2 Gds Tank Corps, all of which attack, losing a total of 24 tanks. No German losses are reported. Recorded as damaged in action today are 6 German tanks and 58 Soviet tanks.

(4) Personnel Losses. Total Soviet combat casualties (3,200) are 3 times the German losses (900). Soviet casualties are relatively light, with the highest casualty rate (5 percent of personnel) in 2 Gds Tank Corps. German casualties are also very light, with 167 ID having the highest rate (1 percent of personnel).

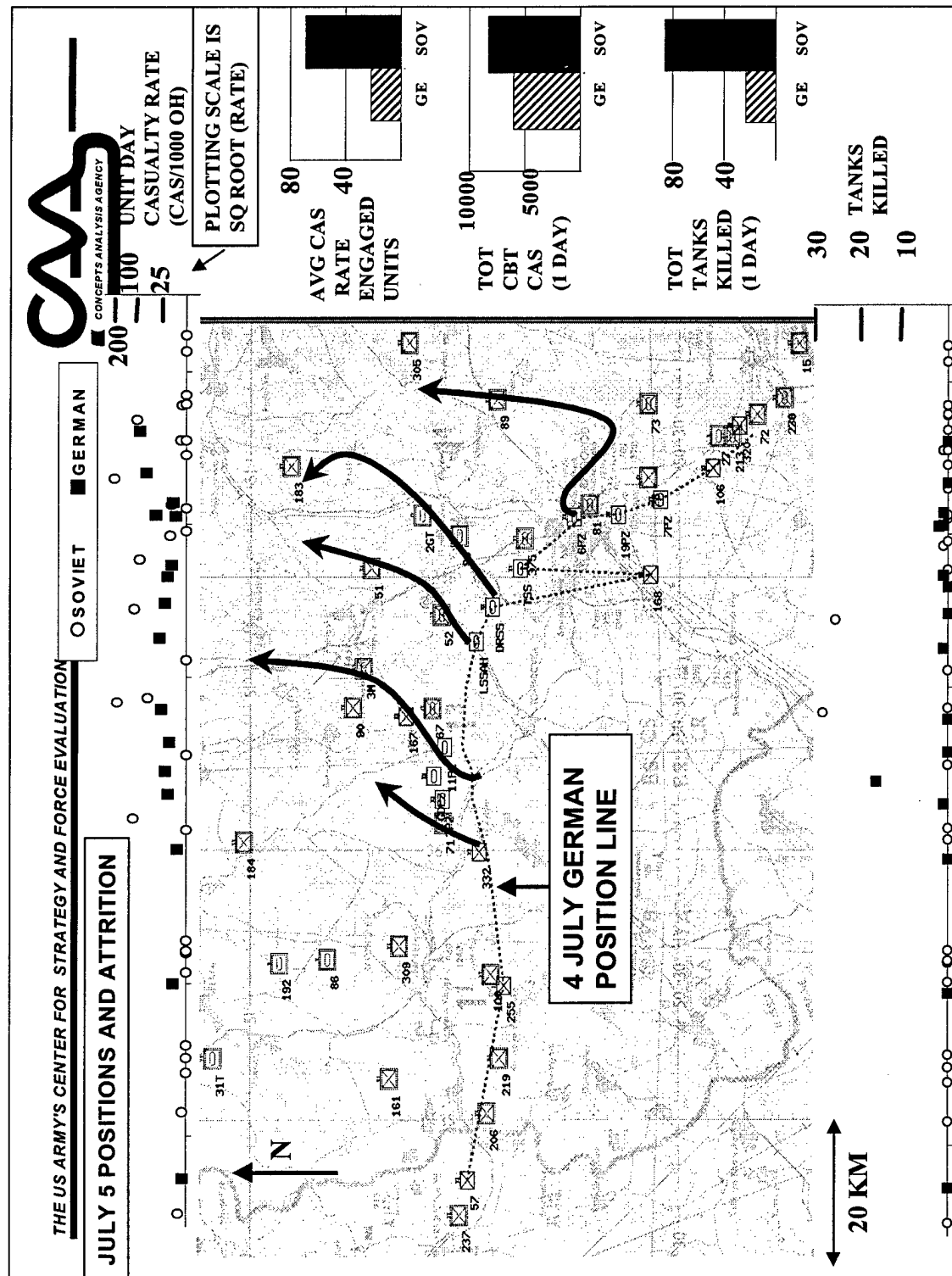


Figure 8-4. Unit Positions and Attrition on 5 July

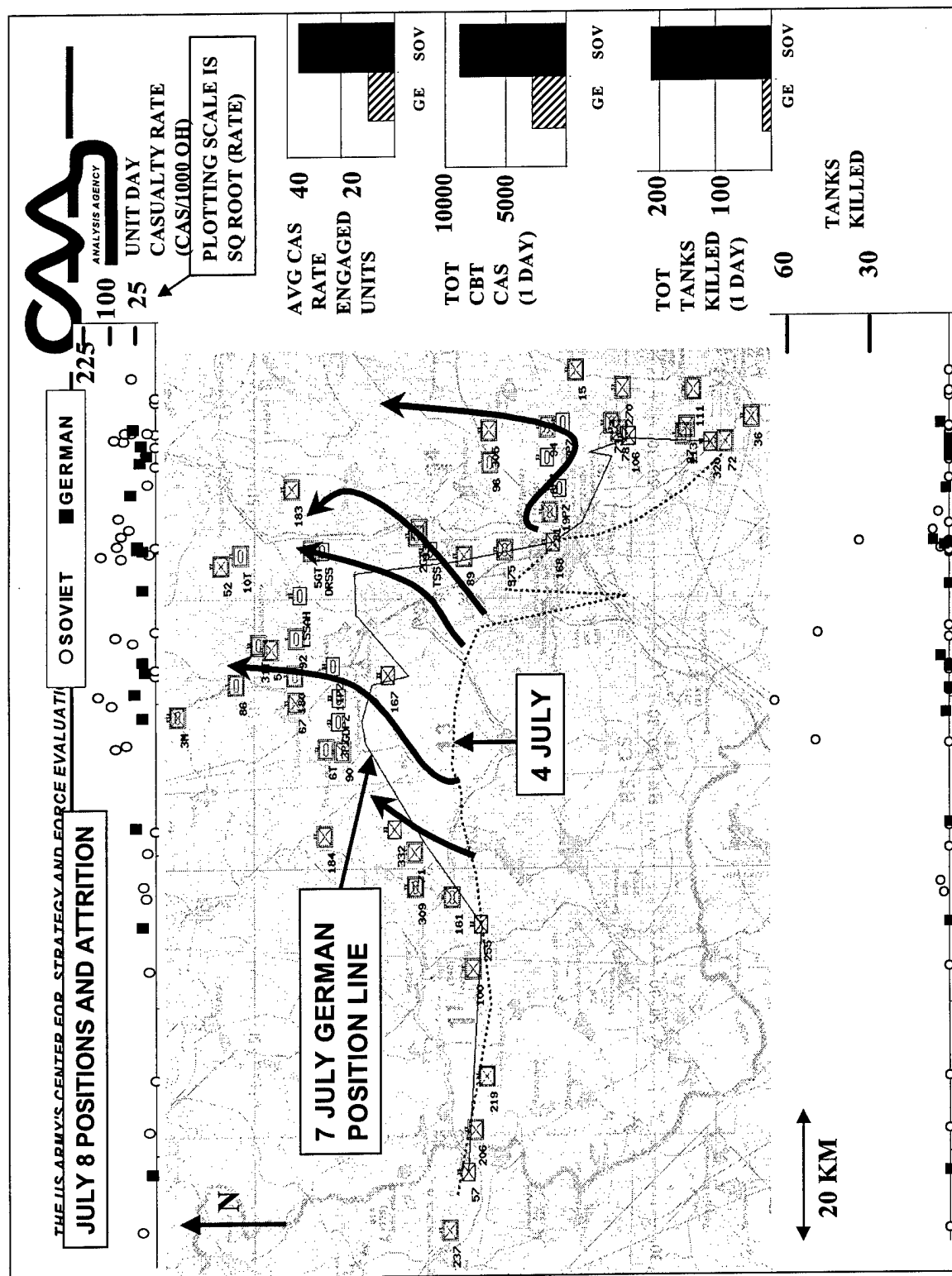


Figure 8-5. Unit Positions and Attrition on 8 July

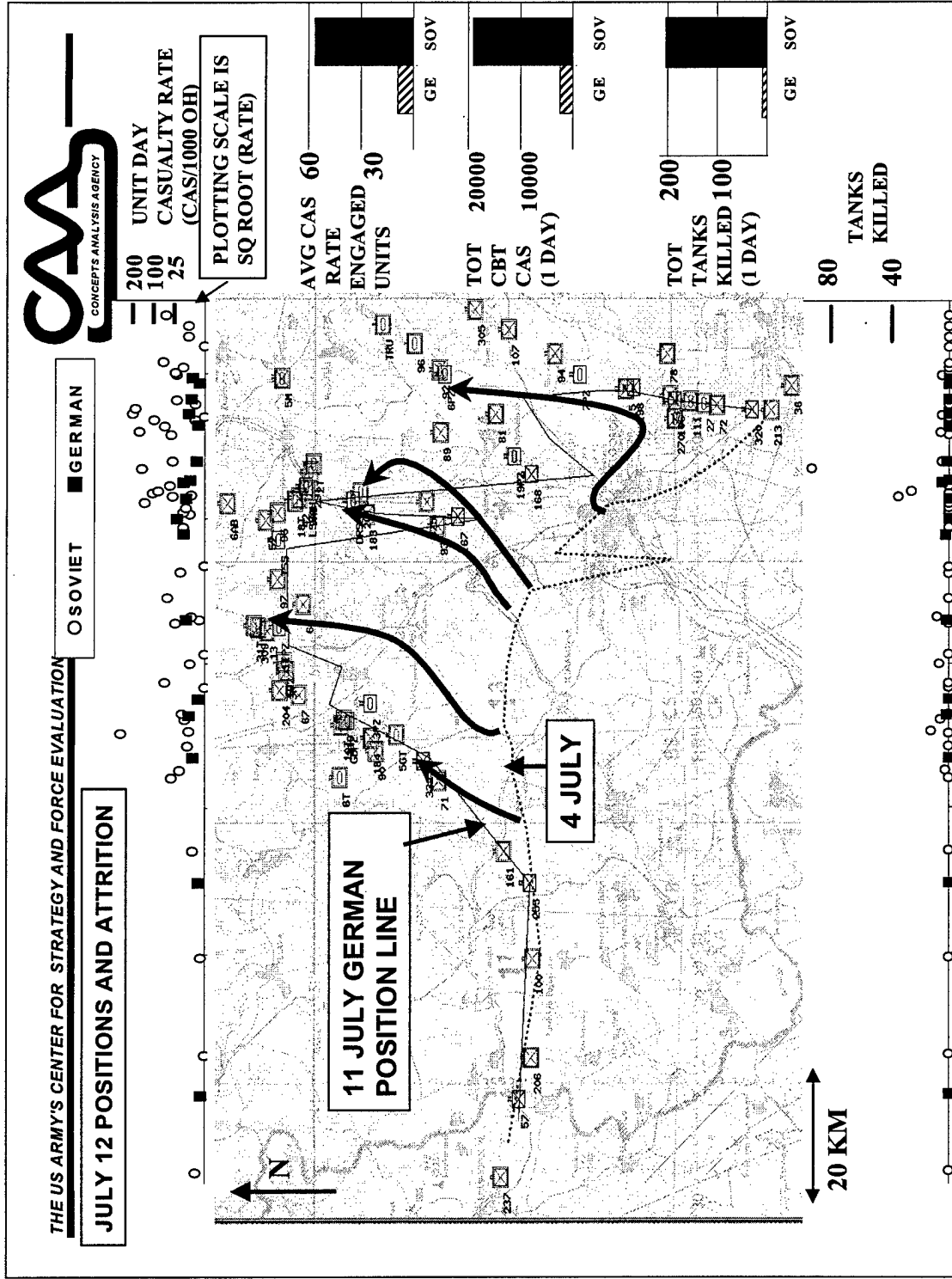


Figure 8-6. Unit Positions and Attrition on 12 July

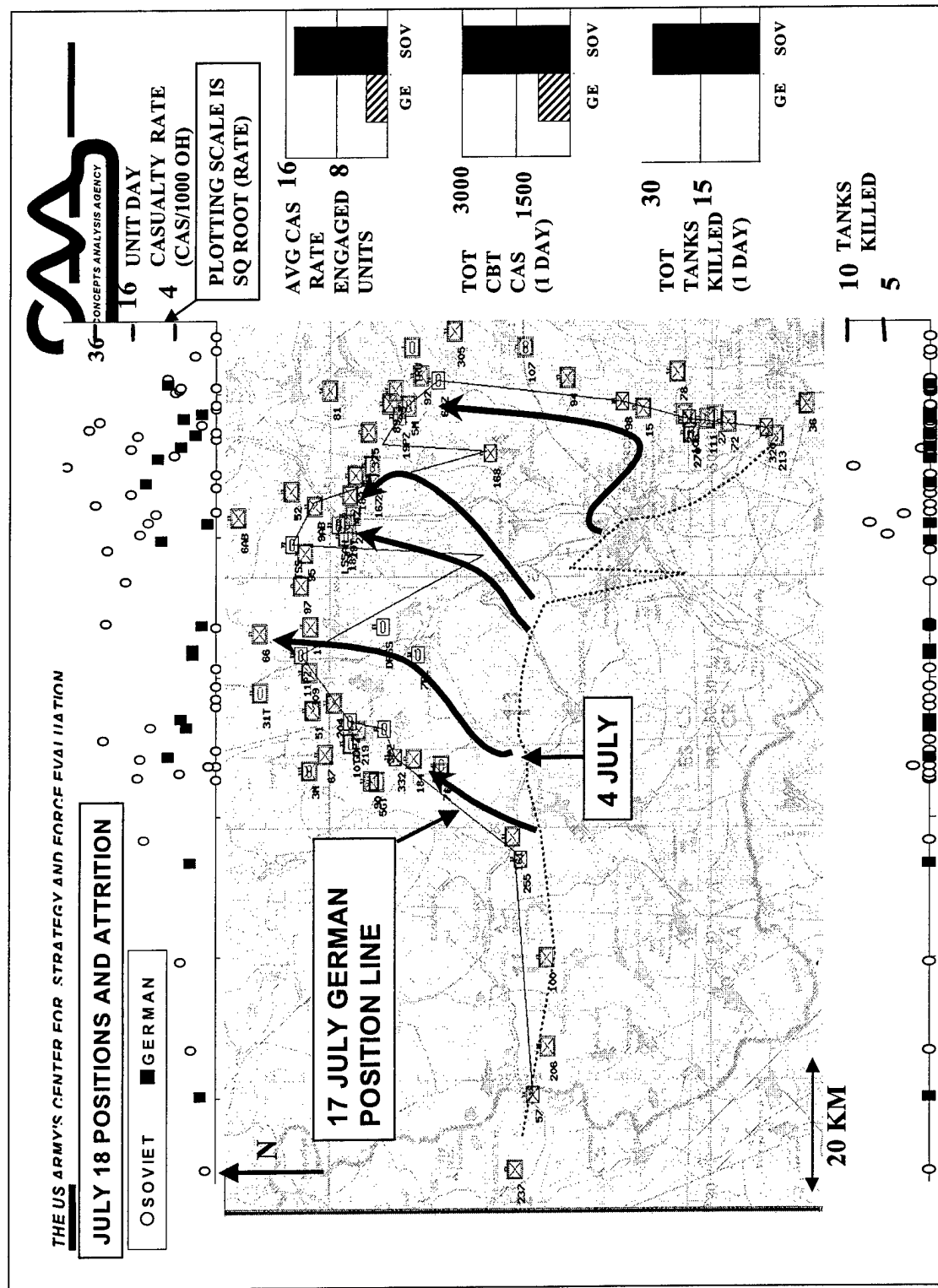


Figure 8-7. Unit Positions and Attrition on 18 July

CHAPTER 9

OBSERVATIONS

9-1. PURPOSE. The purpose of this chapter is to address the essential elements of analysis specified in the study directive by summarizing the observations noted in the previous chapters. The overall objective is to construct a campaign summary of the southern front of the Kursk Battle from the assessed statistical results and trends derived from the KDB.

9-2. ESSENTIAL ELEMENTS OF ANALYSIS. In response to the following study EEA, summary observations were developed from the results and analysis in Chapters 3 through 8:

a. What are results and trends from the KDB for units and combat posture status?

(1) Force Composition. The German force in the southern front Kursk Battle consisted of seven German headquarters units, eight infantry divisions, five Panzer divisions, and four Panzer Grenadier divisions. The Soviet force consisted of 19 Soviet headquarters units, 35 rifle divisions, 8 tank corps, 2 mechanized corps, 2 airborne divisions, and 1 detachment.

(2) German Combat Postures. The majority of the German units were continually attacking from 5 July through 12 July, but all ceased attacking by 17 July, when almost all were in prepared defenses. The recorded maximum German offensive efforts were on 6 July and 11 July.

(3) Soviet Combat Postures. The maximum Soviet counteroffensive efforts were on 12 July and 18 July. The vast majority of Soviet line units were in defensive postures on all days except 12 July, when they counterattacked. After the 12 July counterattack, the vast majority of attacking Soviet units shifted into hasty defense postures by 14 July.

(4) Fraction in Active Combat. A considerably larger fraction of the German line units was engaged in combat and incurring casualties for a longer time than was the case for Soviet line units. More than half of Soviet line units were not in active combat from 4-10 July and 15-18 July.

b. What are results and trends from the KDB for army personnel status and casualties?

(1) Fraction Personnel Engaged. Over 5-18 July, an average of 92 percent of the German manpower was engaged, versus an average 67 percent for the Soviets.

(2) Permanent versus Temporary Casualties. The effect of a large German advantage in number of KIA is offset by near parity in "temporary" loss rates (fraction of force wounded).

(3) Differences in Casualties. From 5-18 July, Soviet casualties were much greater than German. Relative to initial onhand, total casualties amounted to 23 percent of the Soviet force

Overall, the Soviets lost (KIA) nearly 5 men killed for every German killed and 24 CMIA for every German CMIA.

(4) Daily Casualty Rates. If daily average combat casualty rates are averaged over the 5 July-18 July period, the overall Soviet rate was 4 times the German rate.

(5) Exposure to Combat Fatigue. After 4 July, all German line units in the theater were taking casualties, but, on average, almost 30 percent of Soviet line units were not taking casualties during this period. Over 5-18 July, an average of 92 percent of the German manpower was in contact with enemy forces, versus an average 67 percent for the Soviets.

(6) Fractional Exchange Ratios. Soviet/German FER results computed in favor of Germans, based on both KCMIA casualties and on combat casualties, show that the Germans almost always had an advantage ($FER > 1$). The KCMIA FER exceeds 4.00 on 9 days. However, the historical battle outcome suggests that this was not enough to achieve a decisive victory.

c. What are results and trends from the KDB for army weapons status and losses?

(1) Initial Force Level Comparison. At the start of the campaign, the Germans were outnumbered at least 2:1 in tanks and at least 3:1 in heavy AT weapons and light infantry support weapons (machineguns, mortars, and light AT). Initial German parity or superiority in initial inventory existed only for artillery, rockets, APC, and antiaircraft weapon classes.

(2) Beginning Assets versus Ending Assets

(a) Ending (18 July) German onhand tank assets were about 50 percent of initial onhand levels, but all other German weapon classes had ending onhand assets close to their initial (4 July) levels.

(b) Ending Soviet tank levels were 40 percent of initial levels, and ending AT weapon and infantry support weapon (mortar, flame/MG) asset levels were about one-third lower than initial. The heavy losses in Soviet minor weapons were probably due to entire units being overrun during the German advance.

(c) Soviet artillery, antiaircraft, and rocket launcher onhand assets on 18 July were close to initial levels.

(3) Weapons in Contact. From 5-18 July, an average 98 percent of onhand German tanks and 97 percent of German heavy AT weapons were in contact with the enemy, as opposed to an average of only 64 percent of Soviet tanks, and only 67 percent of Soviet heavy AT.

(4) Soviet:German Loss Ratios. German AA losses and rocket launcher losses were greater than Soviet losses, but the Soviets lost far more in all other categories. Overall, the Germans killed (destroyed) six Soviet tanks for every tank they lost. Soviet:German loss ratios

(for destroyed weapons) over the entire campaign were very high for heavy AT (8:1), light AT (70:1), mortars (16:1), and flame/MG (20:1).

(5) Ratios of Damaged to Destroyed Weapons

(a) The ratio of damaged to destroyed weapons exceeded 1.00 for five of the nine German weapon classes, but for only one Soviet weapon class.

(b) There were 5.6 damaged German tanks for every destroyed German tank and 2.5 damaged German heavy AT weapons for every destroyed German AT weapon.

(c) The Soviet ratios of damaged to destroyed tanks and damaged to destroyed heavy AT were less than 1.00.

(6) Fractional Exchange Ratios. The Soviet/German FERs for tanks and for heavy AT weapons, computed in favor of the Germans and based on destroyed weapons, are much greater than the comparable FERs based on [destroyed + damaged] weapons.

d. What are results and trends from the KDB for ammunition status?

(1) Onhand Inventory. Artillery and small arms/AA accounted for the majority (71 percent) of initial German inventory tonnage, while artillery and tank/AT ammo comprised most (64 percent) of the initial Soviet tonnage. German daily onhand tank/AT, artillery, rocket, and small arms AA ammunition inventory levels were always higher than Soviet.

(2) Consumption. Over the total KDB campaign, the Soviets consumed 44 percent more tank/AT ammunition than the Germans. The Germans expended three times the Soviet artillery tonnage, two times the Soviet rocket tonnage, and three times the Soviet small arms/AA tonnage expenditure. Artillery accounted for the largest portion of both forces' ammunition tonnage consumed.

e. What are results and trends from the KDB for aircraft sortie status?

(1) Aircraft Roles. The Germans generated more total sorties than the Soviets. The roles with the most sorties were ground attack for the Germans and air-to-air for the Soviets, which accounted for almost half of each combatant's total sorties.

(2) Air-ground Activity. On most days, German air-to-ground activity exceeded Soviet activity. Most German air-to-ground sorties were in the ground attack role, while the majority of Soviet air-to-ground sorties were in the (area) bombing role.

(3) Air-to-air Activity. Soviet air-to-air activity always exceeded German activity. The day-to-day variation in Soviet air-to-air activity was extremely similar to the day-to-day variation in German air-to-ground activity.

(4) **Reconnaissance Activity.** German air reconnaissance activity was usually higher than Soviet.

f. What are results and trends from the KDB for geographic unit positions and German progress?

(1) Cumulative Progress

(a) Both average and maximum German progress peaked on 16 July when elements of 7 Pz Division had advanced 46 km north of their 4 July position, while overall average progress was 21 km.

(b) Cumulative average German progress increased steadily until 16 July, and then leveled off through 18 July.

(2) Daily Change in Progress

(a) Average (over units) German northbound progress increased every day, except for 17 July, but daily changes after 13 July were less than 1 km. The largest single day gain in average German northbound progress was 3.3 km on 8 July.

(b) The largest daily changes in German maximum (over units) northbound progress were gains of 9 km on 7 July and 8 km on 10 July. These 2 days accounted for almost 40 percent of the maximum German northbound progress over the entire KDB campaign.

g. What aspects of combat appeared to significantly affect historical battle outcome?

(1) **Relationship Between Permanent and Temporary Personnel Losses.** The effect of a large German advantage in number of "permanent" (KIA) kills was offset by near parity in "temporary" loss rates (fraction of force wounded). Since the initial Soviet force was almost double the size of the Germans, a campaign of attrition could not produce a decisive German victory with these casualty rates.

(2) **Personnel Fatigue from Close Combat.** The Germans had a considerably larger portion of their force in contact and taking casualties than did the Soviets. This suggests that the German force was subjected to more fatigue from the effects of nearly constant combat than was its opponent. Also, since rest and replenishment were minimal in such a heavily committed force, the effectiveness and efficiency of German combat elements probably deteriorated over time relative to the Soviet force.

(3) **Lack of Mechanized Reserves.** With an average of 97+ percent of its heavy mechanized force on the front lines, the Germans, unlike the Soviets, had no reserves on which to draw. The combat quality of the German mechanized weapon systems probably deteriorated from continual combat without rest and replenishment.

(4) Relationship Between Permanent and Temporary Tank Losses. The Soviet:German ratio of [destroyed tanks + damaged tanks not returned] is only 2.66, which is considerably less than the 6:1 Soviet:German ratio of tanks destroyed. Although favorable to the Germans, it was not enough to achieve a decisive victory.

(5) Insufficiently Favorable Fractional Exchange Ratios. A very high FER was required to achieve annihilation, but high FERs were sporadic and not sustained. In addition, the Soviets always had unengaged reserves, while the Germans were always fully committed and engaged.

APPENDIX A
STUDY CONTRIBUTORS

A-1. STUDY TEAM

a. Study Director

Mr. Walter J. Bauman, Office of the Chief of Staff

b. Team Member

Mr. Ralph E. Johnson

A-2. PRODUCT REVIEW BOARD

Mr. Ronald J. Iekel, Chairman

CPT Kevin J. Vink

Mr. George G. Peery III

APPENDIX B

STUDY DIRECTIVE

MEMORANDUM FOR: DIRECTOR, US ARMY CONCEPTS ANALYSIS AGENCY
8120 WOODMONT AVENUE, BETHESDA, MD 20814

SUBJECT: Kursk Operation Simulation and Validation Exercise (KOSAVE) Study - Phase II

1. PURPOSE OF DIRECTIVE. This Directive provides for the conduct of a study to develop and document a statistical record of the World War II (WW II) Battle of Kursk, based on the Kursk Data Base (KDB) containing historical data describing the battle.

2. STUDY TITLE: Kursk Operation Simulation and Validation Exercise (KOSAVE) Study - Phase II (KOSAVE II)

3. BACKGROUND.

a. In 1995, CAA completed the Ardennes Campaign Simulation (ARCAS) Study. ARCAS compared a simulation of the 1944-45 Ardennes Campaign of World War II (WW II) with historical data from the Ardennes Campaign Simulation Data Base (ACSDB) a computerized data base campaign derived from archival historical records. ARCAS was a novel use of a comprehensive data base of historical data from a large-scale real world campaign which set initial conditions for a model validation exercise using a fully automated campaign model. The stochastic combat simulation tested in the ARCAS analysis was the Stochastic CEM (STOCCEM) model, a stochastic version of the Concepts Evaluation Model VII (CEM VII). Valuable information and observations on simulation model behavior and guidelines for CAA model changes and improvements have resulted from the ARCAS effort.

b. The ARCAS results are only a first step in the Model-Test-Model paradigm of validation methodology which uses model test and evaluation results in an iterative process of successive model improvement with each successive step increasing overall validity. A different historical campaign is a necessary baseline for an operational (re-)test of an improved STOCCEM, and will also provide additional insights on simulation behavior and credibility. In light of this requirement, Director, CAA, proposed that, concurrent with the ARCAS, a history data base of another WW II battle should be constructed as a precursor to execution of a follow-on validation effort, with objectives analogous to those of ARCAS, which could be used to test and refine the results from ARCAS.

c. In 1993, The Dupuy Institute was issued a contract to construct a comprehensive history data base of the Southern Front of the WW II Battle of Kursk. This data base, designated as the Kursk Data Base (KDB), was completed in September, 1996. The WW II Battle of Kursk is designated as the historical campaign for use in testing and assessing the predictive value of STOCCEM. The Southern Kursk Battle will be simulated with the STOCCEM, using the KDB as input. Simulation results will then be compared with history data, and subsequently used to test, verify, modify, and extend observations and model modification guidelines developed from ARCAS.

d. Prior to setting up and executing the combat simulation, an historical baseline must be created from the KDB. The KOSAVE Study (Phase II) is will generate a statistical record of the Kursk Battle from the KDB which can serve as both a baseline for the simulation scenario, and as a standalone historical record.

4. STUDY SPONSOR AND STUDY DIRECTOR. KOSAVE is a CAA in-house study. The study sponsor is the Director, U.S. Army Concepts Analysis Agency. The study director is Mr. Walter J. Bauman.

5. PERFORMING AGENCY. U.S. Army Concepts Analysis Agency (USACAA).

6. PURPOSE. The purpose of the KOSAVE Study (Phase II) is to develop and document a statistical record of the Kursk Battle from the KDB for use as both a baseline for simulation comparison, and as a standalone descriptive record for historians

7. OBJECTIVES. Assess results and trends from the KDB for the following aspects of the Kursk Battle:

- a. units and combat posture status
- b. personnel status and casualties.
- c. army weapons status and losses.
- d. ammunition status.
- e. aircraft sortie status.
- f. geographic unit positions and progress.

8. SCOPE.

a. The base campaign scenario used in the combat simulation is the Southern Front of the WW II Battle of Kursk, as represented in the KDB historical data.

b. Only results and data for combat units in the KDB will be included. Noncombat support units will not be covered.

9. TIMEFRAME. The scenario timeframe is from 4 July 1943 (denoted as D-Day) through 18 July 1943.

10. LIMITATIONS.

a. Results will not be expressed in terms of specific KDB weapon types. Weapons will be aggregated into categories or classes for tractability.

b. The accuracy of results directly reflects, and depends on, the accuracy of the KDB collection process. Any errors in the KDB will be carried over into quantification summaries and results.

c. Human factors (e.g. fatigue, caution, aggressiveness) regulating the pace and intensity of battle were not quantifiable.

11. ASSUMPTIONS.

a. The Kursk Data Base accurately represents the status and structure of forces in the Southern Front of the actual WW II Battle of Kursk

b. The personnel casualty and system kill criteria used to categorize KDB casualty and weapon loss are sufficiently consistent to allow meaningful reporting and comparisons between combatants.

c. The use of interpolation techniques between irregular reports in historical records to enable and create a complete set of daily report records in the KDB is reasonable.

12. ESSENTIAL ELEMENTS OF ANALYSIS (EEA).

a. What are results and trends from the KDB for units and combat posture status?

b. What are results and trends from the KDB for personnel status and casualties?

c. What are results and trends from the KDB for army weapons status and losses?

d. What are results and trends from the KDB for ammunition status?

e. What are results and trends from the KDB for aircraft sorties?

f. What are results and trends from the KDB for geographic unit positions and German progress?

g. What aspects of combat appeared to significantly affect historical battle outcome?

13. RESPONSIBILITIES. Since this is an internal study, CAA will direct the study, obtain the necessary data, perform required analyses, organize results, and document the study.

14. LITERATURE SEARCH AND REFERENCES.

a. The following documents are directly relevant to the conduct of this study:

(1) Ardennes Campaign Simulation (ARCAS), Study Report CAA SR-95-8, US Army Concepts Analysis Agency, December 1995, AD A 307 014.

(2) Draft Final User's Guide for the Battle of Kursk; Southern Front; A Validation Data base, 1 July 1996, The Dupuy Institute, Contract no. DASW01-95-C-0068.

(3) Final Data Base Conventions for the Battle of Kursk; Southern Front; A Validation Data base, 1 July 1996, The Dupuy Institute, Contract no. DASW01-95-C-0068.

b. The following books are relevant to the historical background of the Battle of Kursk:

(1) Cross, Robin, Citadel - The Battle of Kursk, Sarpedon, 1993.

(2) Caidin, Martin, The Tigers are Burning, Hawthorne Books, Inc., 1974.

(3) Healy, Mark, Kursk 1943: The Tide Turns in the East, Osprey Campaign Series v. 16, Reed International Books Ltd., 1993.

(4) Quarrie, Bruce R.B., Tank Battles in Miniature v. 2: A Wargamer's Guide to the Russian Campaign 1941-45, Patrick Stephens Limited, 1975.

15. ADMINISTRATION.

a. Approval of Study Directive February 1997

b. In-progress reviews As Required

c. Brief Final Results September 1998

d. Final Report September 1998

e. CAA Point of contact is Mr. Walter J. Bauman, CSCA-MV, DSN 295-5261 or commercial (301) 295-5261.

f. This memorandum complies with the missions, functions, and procedures of the U.S. Army Concepts analysis Agency.

E.B. Vandiver III
Director

APPENDIX C**REFERENCES/BIBLIOGRAPHY****REFERENCES**

1. Ardennes Campaign Simulation (ARCAS), CAA-SR-95-8, US Army Concepts Analysis Agency, December 1995, AD A 307 014
2. User's Guide for the Battle of Kursk, Southern Front, A Validation Database, The Dupuy Institute, Contract No. DASW01-95-C-0068, 31 July 1996
3. Data Base Conventions for the Battle of Kursk, Southern Front, A Validation Database, The Dupuy Institute, Contract No. DASW01-95-C-0068, 1 July 1996
4. Kursk Operation Simulation and Validation Exercise - Phase II Database Supplement (KOSAVE II DBS) CD-ROM, US Army Concepts Analysis Agency, September 1998
5. Ardennes Fractional Exchange Ratio Research Paper, CAA-RP-96-1, US Army Concepts Analysis Agency, January 1997, AD A 325 669

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APPENDIX D

COMBAT UNIT ATTACHMENTS IN THE KDB

D-1. INTRODUCTION. The tables in this appendix show the unit ID of all German and Soviet combat units in the KDB and indicate which KDB units below division level were attached to higher level primary combat units, and which were unattached nondivisional units operating independently. Most units recorded in the KDB on a day were recorded therein as attached to one of the primary combat units listed in Tables 3-1 and 3-2, Chapter 3. Two dummy unit names have been created to refer to the collective total, in each force, of combat units which are not attached to any other unit. The dummy unit named UNATTACHED is listed as a parent to all units which, according to the KDB, were not attached to any parent unit on a given day, but which were attached to a parent unit on at least one other day of the campaign. The dummy unit named OTHER NONDIV is listed as a parent to all units which, according to the KDB, are never attached to any parent unit at any time during the entire KDB campaign.

D-2. ATTACHMENT RELATIONSHIPS. Tables D-1 and D-2 are not in conflict with Tables 3-4 and 3-5, which show each combatant's order of battle. Tables D-1 and D-2 show attachment relationships of units below division level which are primarily associations formed to achieve combined and coordinated operations and support at a maneuver level. These relationships differ from those in Tables 3-4 and 3-5, which show hierarchical order of battle subordination of units at the strategic planning level. They do not show recorded attachments of units at division and corps level to higher units because they are intended to show only positional groupings of units operating together as part of a primary combat unit.

D-3. GERMAN COMBAT UNIT ATTACHMENTS. Table D-1 shows attachment rules for all 75 German combat units in the KDB. Each unit is numbered in the No. column. Column headings 4J through 18 denote days 4 July through 18 July 1943. The number entry for a given unit on a given day is the unit number (from the No. column) of the parent unit to which the given unit is attached on that day. The dummy unit ID named UNATTACHED is listed as unit No. 78. (No unit numbers 76 and 77 are listed.) Units in the table which have UNATTACHED as a parent are actually not attached to any parent unit on that day. Each parent unit, except for the dummy unit, UNATTACHED, is listed in the table as attached to itself on each day. Each primary German combat unit listed in Table 3-1 is a parent unit in Table D-1, and there are no other German parent units. Example attachment relationships derivable from Table D-1 include:

a. Illustrative Example 1. Unit No. 23 is entered in the 4J column of Table D-1 only for units No. 23, No. 41, and No. 71, signifying that LSSAH (unit No. 23) is attached to itself on 4 July, and 861st Artillery Bn (unit No. 41) and 55th Nebelwerfer Rgt (unit No. 71) are the only other units attached to it on that day.

b. Illustrative Example 2. Unit No. 78 is entered in the 4J column of Table D-1 only for unit No. 66, signifying that 2/III/101st Art Rgt (unit No. 66) is the only combat unit not attached to any parent unit on that day.

Table D-1. Daily Attachment of German Combat Units in the KDB
(page 1 of 2 pages)

No.	Unit ID	4J	5	6	7	8	9	Day	10	11	12	13	14	15	16	17	18
1	3d Pz Corps	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	48 th Pz Corps	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	4 th Panzer Army	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	52d Corps	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	Corps Raus	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	II SS Pz Corps	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	Provisional Army Kempf	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	106 th ID	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	167 th ID	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	168 th ID	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	198 th ID					11	11	11	11	11	11	11	11	11	11	11	11
12	255 th ID	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13	320 th ID	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14	332 nd ID	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	57 th ID	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16	11 th PzD	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17	19 th PzD	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
18	3d PzD	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
19	6 th PzD	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
20	7 th PzD	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
21	DR SS PzGrD	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
22	GD PzGrD	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
23	LSSAH PzGrD	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
24	T SS PzGrD	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
25	39 th Pz Rgt	2	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
26	77 th Flak Bn											8	8	8	8	8	78
27	I/19 th Flak Rgt	8	8	8	8	8	8	8	8	8	8	8	8	8	8	11	11
28	I/33d Flak Rgt	13	13	13	13	13	13	13	13	13	13	78	78	78	78	78	78
29	I/38 th Flak Rgt	19	19	19	19	20	20	20	20	20	20	10	20	20	20	9	9
30	I/5 th Flak Rgt	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
31	I/61 st Flak Rgt	1	1	20	20	17	17	17	17	17	17	17	17	17	17	17	17
32	I/7 th Flak Rgt	8	8	8	8	8	8	78	78	78	78	78	78	78	78	78	78
33	II/241 st Flak Rgt	13	13	13	13	13	13	13	13	13	13	13	13	13	13	78	78
34	II/24 th Flak Rgt	8	8	8	8	8	8	8	8	8	8	8	8	8	8	78	78
35	II/38 th Flak Rgt	19	19	17	17	20	20	20	20	20	20	20	20	20	20	20	9
36	II/43d Flak Rgt	1	1	20	20	19	19	19	19	19	19	19	19	19	19	19	19
37	II/Lehr Flak Rgt					13	13	13	13	13	13	13	13	13	13	13	13
38	It Bn/91 st Flak Rgt	1	1	1	1	20	20	20	20	19	19	19	19	19	19	19	19
39	99 th Flak Rgt Staff	19	19	19	19	20	20	20	20	20	20	20	20	20	20	20	78
40	857 th Hvy Artillery Bn	1	1	1	1	19	19	1	1	1	1	1	1	1	1	1	1
41	861 st Artillery Bn	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
42	I/108 th Artillery Rgt	2	2	14	14	14	14	14	14	14	14	14	14	14	14	12	14
43	I/1 st Hvy Werfer Rgt	14	14	14	14	14	14	14	14	14	14	14	14	16	16	16	18
44	I/1 st Lehr Werfer Rgt	9	9	9	9	9	9	9	9	9	23	23	23	23	23	23	12
45	I/213 th Artillery Rgt	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
46	I/52 nd Werfer Rgt	13	13	13	13	13	13	13	1	17	17	17	17	17	17	17	17
47	I/54 th Werfer Rgt	17	17	17	17	17	17	20	20	20	20	20	20	20	20	9	9
48	I/77 th Lt Artillery Rgt	13	13	13	13	13	13	13	13	13	13	8	8	8	8	8	8

Table D-1. Daily Attachment of German Combat Units in the KDB
(page 2 of 2 pages)

								Day									
No.	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
49	II/1st Hvy Werfer Rgt	8	8	8	8	8	8	8	8	8	8	8	8	8	8	5	
50	II/1st Lehr Werfer Rgt	6	6	6	24	24	24	24	24	24	24	24	24	24	24	12	
51	II/52nd Werfer Rgt	8	8	8	8	8	8	8	1	17	17	17	17	17	17	17	
52	II/54th Lt Artillery Rgt	8	8	8	8	8	8	8	5	5	11	11	11	11	11	11	
53	II/54th Werfer Rgt	17	17	17	17	17	17	20	20	19	19	19	19	19	9	9	
54	II/62nd Artillery Rgt	1	1	1	1	20	20	1	20	19	19	19	20	20	20	20	
55	II/71st Artillery Rgt	1	1	1	1	17	19	1	1	1	1	1	1	1	1	5	
56	III/109th Artillery Rgt	14	14	14	14	22	22	22	22	22	22	22	22	2	2	2	
57	III/1st Hvy Werfer Rgt	14	14	14	14	14	14	14	14	14	12	12	16	16	16	18	
58	III/1st Lehr Werfer Rgt	21	21	21	21	21	21	21	21	21	21	21	21	21	21	12	
59	III/52nd Werfer Rgt	13	13	13	13	13	13	13	1	17	17	17	17	17	17	17	
60	III/54th Werfer Rgt	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
61	III/818th Artillery Rgt	6	6	6	78	78	78	78	78	78	78	78	78	78	78	12	
62	SS Corps Werfer Bn	24	24	24	24	24	9	24	24	24	24	24	24	24	24	24	
63	842nd Heavy Art Bn (-)	2	2	2	2	22	22	22	22	22	22	22	22	22	22	22	
64	III/101st Artillery Rgt-	2	2	2	2	18	18	18	18	18	18	18	18	2	2	2	
65	1/842nd Hvy Art Bn	14	14	14	14	14	14	14	14	14	14	14	14	14	14	12	
66	2/III/101st Art Rgt	78	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
67	3/731st Hvy Art Bn	14	14	14	14	14	14	2	2	2	2	2	2	2	6	6	
68	122nd Artillery Co	2	2	2	2	2	2	2	2	2	2	2	2	78	6	6	
69	132nd Mtn Artillery Co	6	6	6	6	6	6	6	6	6	6	6	6	78	78	78	
70	3d Co of Nblwfr Troops	6	6	6	6	6	6	6	6	6	6	6	6	6	6	78	
71	55th NebelWerfer Rgt	23	23	23	23	23	23	23	23	23	23	23	23	23	23	16	
72	228th Assault Gun Bn	19	19	19	19	19	19	19	19	19	19	19	19	19	9	5	
73	503d Heavy Panzer Bn	1	1	1	1	1	1	1	19	1	19	1	1	78	78	78	
74	905th Assault Gun Bn	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
75	393d Assault Gun Bty	13	13	13	13	13	13	8	8	8	8	5	5	5	5	5	
78	UNATTACHED																

D-3. SOVIET COMBAT UNIT ATTACHMENTS. Table D-1 shows attachment rules for all 191 Soviet combat units in the KDB. Each unit is numbered in the No. column. The number entry for a given unit on a given day is the unit No. (from the No. column) of the parent unit to which the given unit is attached on that day. The dummy unit IDs named UNATTACHED and OTHER NONDIV are listed as units No. 157 and No. 191. Units in the table which have UNATTACHED or OTHER NONDIV listed as a parent are actually not attached to any parent unit on that day. Each parent unit, except for the dummy units, UNATTACHED and OTHER NONDIV, is listed in the table as attached to itself on each day. Each primary Soviet combat unit listed in Table 3-2 is a parent unit in Table D-2, and there are no other Soviet parent units. Example attachment relationships derivable from Table D-2 include:

a. Illustrative Example 1. Unit No. 34 is entered in the 4J column of Table D-2 only for units No. 34 and No. 96, signifying that 206th RD (unit No. 34) is attached to itself on 4 July, and 122d ATR Bn (unit No. 96) is the only other unit attached to it on that day.

b. Illustrative Example 2. Unit No. 157 is entered in the 4J column of Table D-2 only for the 19 units with Nos. 68, 85, 86, 90, 99, 100, 111, 116, 117, 118, 121, 122, 123, 124, 125, 132, 145, 147, and 155, signifying each of these 19 units is not attached to any parent unit on that day (but is attached to a parent on some other day).

Table D-2. Daily Attachment of Soviet Combat Units in the KDB
(page 1 of 4 pages)

No.	Unit ID	4J	5	6	7	8	9	Day	10	11	12	13	14	15	16	17	18
1	6 th Gds AbnD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	9 th Gds AbnD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	Trufanovs Detachment	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	1 st Tank Army	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	22d Gds RC	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	23d Gds RC	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	24 th Gds RC	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	25 th Gds RC	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	32d Gds RC	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	33d Gds RC	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	35 th Gds RC	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12	40 th Army	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13	47 th RC	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14	48 th RC	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	49 th RC	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16	52d RC	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17	5 th Gds Army	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
18	5 th Gds Tank Army	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
19	69 th Army	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
20	6 th Gds Army	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
21	7 th Gds Army	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
22	Voronezh Front	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
23	3d Mech Corps	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
24	5 th Gds MC	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
25	100 th RD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
26	107 th RD	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
27	111 th RD	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
28	13 th Gds RD	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
29	15 th Gds RD	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
30	161 st RD	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
31	183d RD	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
32	184 th RD	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
33	204 th RD	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
34	206 th RD	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
35	213 th RD	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
36	219 th RD	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
37	237 th RD	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
38	270 th RD	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
39	305 th RD	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
40	309 th RD	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
41	36th Gds RD	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41

Table D-2. Daily Attachment of Soviet Combat Units in the KDB
(page 2 of 4 pages)

No.	Unit ID	4J	5	6	7	8	9	Day	10	11	12	13	14	15	16	17	18
42	375th RD	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
43	42d Gds RD	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
44	51st Gds RD	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
45	52d Gds RD	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
46	66th Gds RD	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
47	67th Gds RD	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
48	71st Gds RD	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
49	72d Gds RD	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
50	73d Gds RD	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
51	78th Gds RD	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
52	81st Gds RD	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
53	89th Gds RD	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
54	90th Gds RD	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
55	92d Gds RD	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
56	93d Gds RD	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
57	94th Gds RD	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
58	95th Gds RD	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
59	97th Gds RD	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
60	10th TC	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
61	18th TC	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
62	29th TC	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
63	2d Gds TC	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
64	2d TC	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
65	31st TC	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
66	5th Gds TC	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
67	6th TC	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
68	180th TkBde	157	157	157	23	23	23	23	23	23	22	22	22	22	22	22	22
69	192d TkBde	12	12	12	65	65	23	23	23	23	23	23	23	23	23	23	23
70	201st Gds TkBde	7	50	29	29	51	50	8	15	38	38	38	38	38	38	38	38
71	27th Gds TkBde	21	35	7	7	7	7	7	15	27	27	27	27	27	27	27	27
72	86th TkBde	12	12	12	40	40	40	40	40	40	22	22	22	22	22	22	22
73	96th TkBde	42	42	42	42	42	42	11	55	55	55	11	11	11	11	11	11
74	26th AAD	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
75	29th AAD	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
76	5th AAD	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
77	6th AAD	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
78	8th AAD	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
79	9th AAD	12	12	16	4	4	4	4	20	20	20	20	20	20	20	20	20
80	69th Army AA Rgts	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
81	7th Gds Army AA Rgts	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
82	27th Gun ArtBde	42	42	42	42	157	157	157	157	157	157	157	157	157	157	157	157
83	29th Ind HowBde	12	12	12	12	12	12	12	10	10	10	10	10	10	10	10	10
84	36th Gun ArtBde	12	12	12	16	16	16	16	20	20	6	6	6	6	6	6	6
85	111th Gds Howitzer Rgt	157	157	157	157	54	44	44	44	46	28	28	28	28	157	157	157
86	10th AT ArtBde	157	157	157	157	157	157	19	19	19	19	19	19	19	19	19	19
87	14th AT ArtBde	12	12	20	20	44	44	44	44	157	157	157	157	157	157	20	20
88	27th AT ArtBde	20	48	157	157	67	67	67	67	67	157	157	157	157	157	157	157
89	28th AT ArtBde	20	20	45	45	45	45	45	157	157	157	157	157	157	157	157	157
90	29th AT ArtBde	157	157	12	12	12	12	12	12	12	12	12	28	28	28	28	28

Table D-2. Daily Attachment of Soviet Combat Units in the KDB
(page 3 of 4 pages)

No.	Unit ID	4J	5	6	7	8	9	Day	10	11	12	13	14	15	16	17	18
91	30th AT ArtBde	21	50	50	50	50	50	50	50	50	50	50	50	50	19	19	19
92	31st AT ArtBde	19	19	52	52	52	52	52	52	52	52	52	52	52	52	52	52
93	32d AT ArtBde	12	12	12	157	157	157	157	157	157	157	157	157	157	18	157	157
94	1st Tank Army AT Bns	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
95	5th Gds Tank Army AT Bns	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
96	122d ATR Bn	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
97	123d ATR Bn	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
98	130th ATR Bn	26	26	26	26	26	26	26	26	26	26	26	26	157	157	157	157
99	131st ATR Bn	157	157	157	157	157	157	157	157	50	50	50	50	50	50	50	50
100	132d ATR Bn	157	157	157	157	157	157	157	157	50	50	50	50	50	50	50	50
101	133d ATR Bn	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
102	134th ATR Bn	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
103	135th ATR Bn	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
104	137th ATR Bn	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
105	1st Gds ATR Bn	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
106	210th ATR Bn	65	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157
107	2d Gds ATR Bn	52	52	29	29	29	29	29	29	29	29	29	29	29	29	29	29
108	4th Gds ATR Bn	51	51	29	29	29	29	29	29	29	29	29	29	29	29	29	29
109	5th Gds ATR Bn	41	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157
110	1008th ATRgt	45	45	45	45	45	157	157	157	157	157	157	157	157	157	157	157
111	1076th ATRgt	157	157	157	63	63	63	63	63	63	157	157	157	157	157	157	157
112	1240th ATRgt	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
113	1244th ATRgt	37	37	37	65	65	65	65	65	65	65	65	65	65	23	23	157
114	12th Gds ATRgt	37	37	37	37	37	67	67	157	157	157	157	157	157	157	157	157
115	1510th ATRgt	63	63	63	63	63	63	63	63	63	63	157	157	157	157	157	157
116	1658th ATRgt	157	39	39	39	39	39	39	39	157	157	157	157	157	157	157	157
117	1663d ATRgt	157	157	157	34	34	34	34	34	34	34	34	34	34	34	34	34
118	1664th ATRgt	157	157	157	25	25	25	25	25	25	34	34	34	34	34	34	34
119	1666th ATRgt	48	48	48	48	48	48	157	157	157	157	157	157	157	157	157	157
120	1667th ATRgt	42	42	42	42	42	42	42	42	42	157	157	157	157	157	157	157
121	222d ATRgt	157	157	157	4	4	4	4	4	4	66	66	66	66	32	32	32
122	483d ATRgt	157	157	157	157	157	157	4	4	67	67	67	67	67	67	67	67
123	493d ATRgt	157	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
124	496th ATRgt	157	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
125	4th Gds ATRgt	157	157	157	36	36	65	65	65	65	65	65	65	65	23	23	23
126	538th ATRgt	45	45	45	4	4	4	4	4	4	4	157	157	157	157	157	157
127	5th Gds Army AT Rgts	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
128	611th ATRgt	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
129	694th ATRgt	42	42	42	42	42	42	157	157	157	157	157	157	157	157	157	157
130	7th Gds Army AT Rgts	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
131	868th ATRgt	48	48	48	48	48	48	157	157	157	157	157	157	157	157	157	157
132	869th ATRgt	157	157	157	157	157	157	4	4	4	4	4	4	4	4	4	4
133	156th Flamethrower Co	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
134	192d Flamethrower Co	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
135	75th Flamethrower Co	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
136	88th Flamethrower Co	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
137	95th Flamethrower Co	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
138	16th Gds MtrRgt	42	42	42	42	42	42	19	63	63	63	63	63	63	63	63	157
139	308th Gds MtrRgt	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
140	309th Gds MtrRgt	22	50	50	7	7	7	7	15	15	15	11	11	11	11	11	11

Table D-2. Daily Attachment of Soviet Combat Units in the KDB
(page 4 of 4 pages)

No.	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18
141	314th Gds MtrRgt	48	48	48	48	48	48	47	47	32	32	32	47	47	47	47
142	315th Gds MtrRgt	52	52	52	52	52	52	52	17	17	55	55	55	39	10	10
143	316th Gds MtrRgt	45	45	4	4	4	4	4	4	4	4	4	4	4	4	4
144	36th Gds MtrRgt	22	4	4	40	40	40	40	40	40	66	66	66	20	20	20
145	66th Gds MtrRgt	157	157	157	12	12	16	67	6	6	6	6	59	59	9	9
146	76th Gds MtrRgt	18	18	18	18	18	18	62	62	62	62	62	62	62	62	62
147	79th Gds MtrRgt	157	157	67	67	67	67	67	67	67	67	67	67	67	67	67
148	80th Gds MtrRgt	22	22	48	48	48	48	19	61	61	61	61	61	61	61	63
149	97th Gds MtrRgt	21	52	8	8	8	8	8	8	8	8	7	7	7	7	7
150	7th Gds Army Gds GunRgts	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
151	12th MtrBde	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
152	146th MtrRgt	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
153	290th Mortar Rgt	52	52	52	52	52	52	52	157	157	157	157	157	157	157	157
154	295th MtrRgt	48	48	48	48	48	48	48	48	48	48	48	48	157	157	157
155	469th Mtr Rgt	157	157	157	157	157	157	58	58	58	58	58	58	58	157	157
156	496th Mortar Rgt	26	26	26	26	26	26	26	26	26	26	26	157	157	157	157
157	UNATTACHED															
158	1438th SP Rgt	8	8	50	50	50	21	21	21	21	21	21	21	21	21	21
159	1440th SP Rgt	47	47	47	47	47	47	47	9	9	9	9	9	9	9	9
160	1461st SP Rgt	4	12	12	12	12	12	12	12	12	67	67	67	67	67	67
161	1529th SP Rgt	7	7	29	29	51	8	8	8	62	62	62	62	62	62	62
162	1549th SP Rgt	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
163	1689th SP ATRgt	22	12	12	12	30	30	12	4	4	4	12	12	12	12	12
164	148th TkRgt	7	41	41	8	57	57	57	57	39	39	39	39	26	26	26
165	167th TkRgt	8	8	50	50	50	21	21	21	22	22	22	22	22	22	22
166	203d Ind TkRgt	22	22	22	22	22	23	23	23	23	23	23	23	23	23	23
167	230th TkRgt	45	45	45	45	45	23	23	23	23	22	22	22	22	22	22
168	245th TkRgt	47	47	47	21	21	21	21	21	21	21	21	21	21	21	21
169	262d TkRgt	8	52	50	52	52	21	21	21	21	21	21	21	21	21	21
170	59th Ind TkRgt	12	12	12	30	30	65	65	22	22	22	22	22	22	22	22
171	60th Ind TkRgt	12	12	12	30	30	4	4	4	4	67	22	22	22	22	22
172	22d Gds AA Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
173	1487th AARgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
174	1488th AARgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
175	33d Gun ArtBde	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
176	1148th Howitzer Rgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
177	40th Army ArtRgts	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
178	522d Howitzer Rgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
179	678th Howitzer Rgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
180	127th ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
181	128th ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
182	129th ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
183	136th ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
184	3d Gds ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
185	63d ATR Bn	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
186	1661st ATRgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
187	628th ATRgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
188	76th Flamethrower Co	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
189	5th Gds MtrRgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
190	176th Molotov CocktailCo	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
191	263d Mortar Rgt	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
192	War Dog Platoon	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
193	OTHER NON-DIV															

APPENDIX E

UNIT COMBAT POSTURES AND CONTACT STATUS

E-1. INTRODUCTION. This appendix shows tables with daily contact status and combat posture status for the 48 Soviet primary line combat units and 17 German primary line combat units in the KDB force. The data shown is an exact representation of status as recorded in the KDB. No contact status or combat posture was recorded for headquarters units (those units of type HQ in Tables 3-1 and 3-2). Keys to the meanings of the status codes shown in tables in this appendix are:

a. Contact Status Code Meanings (code symbols are enclosed in ' ')

(1) '+' indicates a unit actively engaged in combat. The unit is directly participating in an attack or is being directly assaulted by an enemy.

(2) '-' indicates an inactive unit which is within contact in the front line, but is not participating in an attack, nor is being assaulted by an enemy.

(3) ' ' A blank entry denotes a unit out of contact and not in the front line.

b. Combat Posture Code Meanings (code symbols are enclosed in ' ')

(1) 'A' indicates attack posture, in which a unit is attempting to attack an enemy unit.

(2) 'D' indicates delay posture in which a unit is deliberately withdrawing before the enemy, but still attempting to make contact.

(3) 'H' indicates a hasty defense posture in which a unit is defending from a position that it has occupied for less than 3 days, or has not fortified.

(4) 'P' indicates a prepared defense posture in which a unit is defending in a position prepared for defense, or has fallen back into a position prepared for defense.

(5) 'O' indicates a posture that cannot be identified as one of the above postures. Usually, this is any reserve position or transit movement.

The above meanings are the descriptions used in the KDB documentation.

E-2. DAILY UNIT CONTACT STATUS. Tables E-1 and E-2 show the daily contact status of German and Soviet line combat units, respectively. Column headings **4J** through **18** denote days 4 July through 18 July 1943. The tabulated units consist of all of the units listed in Tables 3-1 and 3-2 which are not unit type HQ. Units are listed in the same order that they appear in Tables 3-1 and 3-2. The meanings of the tabulated entries are given in paragraph E-1.

Table E-1. Daily Contact Status of German Line Units in the KDB

									Day								
Type	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
ID	106th ID	-	+	+	+	+	+	+	+	+	+	-	+	-	-	+	
ID	167th ID	+	+	+	-	-	+	+	+	+	+	+	+	-	+	+	
ID	168th ID			-	-	+	+	+	+	+	+	+	+	+	-	-	
ID	198th ID						-		+	+	+	+	+	+	+	+	
ID	255th ID	-	-	+	+	+	-	-	-	+	+	+	+	-	-	+	
ID	320th ID	-	+	+	-	-	-	-	-	+	+	-	-	-	-	+	
ID	332nd ID	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
ID	57th ID	+	+	+	-	-	-	-	-	-	+	-	+	+	-	-	
PzD	11th PzD	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	
PzD	19th PzD	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	
PzD	3d PzD	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PzD	6th PzD	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PzD	7th PzD	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PzGrD	DR SS PzGrD	-	+	+	+	+	+	+	+	+	+	+	+	-			
PzGrD	GD PzGrD	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
PzGrD	LSSAH PzGrD	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	
PzGrD	T SS PzGrD	-	+	+	+	+		+	+	+	+	+	+	-	+	+	

Table E-2. Daily Contact Status of Soviet Line Units in the KDB

								Day									
Type	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
AbnD	6th Gds AbnD									-	-	-	-	-	-	-	
AbnD	9th Gds AbnD							-	+	+	+	+	+	+	-	+	
Det	Trufanovs Dett										+	+	+	+	+	-	
MC	3d Mech Corps			+	+	+	+	+	+	-	-	+	-				
MC	5th Gds MC							-	-	-	-	+	-	-	-	-	
RD	100th RD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RD	107th RD						+	-	+	+	+	+	-	+	-	-	
RD	111th RD									+	+	+	+	+	-	+	
RD	13th Gds RD								-	+	+	+	+	+	+	+	
RD	15th Gds RD				+	+	+	+	+	+	+	+	-	-	-	+	
RD	161st RD	-	-	-	+	-	+	-	+	-	-	-	-	-	-	+	
RD	183d RD			+	+	+	+	+	+	+	+	+	+	-	-	+	
RD	184th RD	-	-	-	-	-	+	+	-	+	+	+	+	-	-	+	
RD	204th RD									+	+	+	+	+	-	-	
RD	206th RD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RD	213th RD		-	+	+	+	+	+	-	+	-	+	-	+	-	-	
RD	219th RD	-	-	-	-	-		-	+	+	+	+	-	-	-	-	
RD	237th RD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RD	270th RD								+	+	+	+	+	+	+	+	
RD	305th RD					-	+	+	+	+	-	+	-	-	-	-	
RD	309th RD	-	-	-		+	-	+	+	+	+	+	+	-	+	-	
RD	36th Gds RD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RD	375th RD	-	+	+	+	-	-	-	-	+	-	-	-				
RD	42d Gds RD								-	+	+	-	-	-	+	-	
RD	51st Gds RD		+	+	+	+	+	+	+								
RD	52d Gds RD	-	+	+	+	+	+	+	+	+							
RD	66th Gds RD								+	+	+	+	-	+	-	-	
RD	67th Gds RD	-	+	+	-	+	+	+	+								
RD	71st Gds RD	-	+	+	-	-	+	+	+	+	+	-	-	-	-	-	
RD	72d Gds RD	-	+	+	+	-	-	-	+	+	+	-	-	-	-	+	
RD	73d Gds RD		-	+	+	+	+	+	+	+	+	+	-	-	-	+	
RD	78th Gds RD	-	+	+	+	+	+	+	-	+	-	-	-	-	-	-	
RD	81st Gds RD	-	+	+	+	+	+	+	+	-	-	+	-	-	-	-	
RD	89th Gds RD					+			+	+	+	+	+	+			
RD	90th Gds RD		+	+	+	+	+	+	+	+	-	-	-	-	-	-	
RD	92d Gds RD						+	-	+	-	-	+	+	+	-	-	
RD	93d Gds RD				+	-	+	+	-	+	+	+	+	+	-	-	
RD	94th Gds RD						+	+	+	+	+	+	+	+	-	-	
RD	95th Gds RD							-	+	+	+	-	-	-	-	+	
RD	97th Gds RD								+	+	+	+	+	+	-	+	
TC	10th TC						-	-	+	+	+	+	-	-	-	-	
TC	18th TC								-	+	+	-	-	-	-	+	
TC	29th TC								-	+	-	-	-	-	-	+	
TC	2d Gds TC		-	+	+	+	-	+	-	+	-	+	-	-	-	+	
TC	2d TC						-	+	+	+	-	-	-	-	+	+	
TC	31st TC			-	+	+	+	+	+	+	+	-	-				
TC	5th Gds TC			-	+	+	+	-	+	+	-	+	-	-	-	-	
TC	6th TC			+	+	+	+	+	+		-	+				+	

E-3. DAILY UNIT COMBAT POSTURE STATUS. Tables E-3 and E-4 show the daily combat posture status of German and Soviet line combat units, respectively. Column headings 4J through 18 denote days 4 July through 18 July 1943. The tabulated units consist of all of the units listed in Tables 3-1 and 3-2 which are not unit type HQ. Units are tabulated in the same order that they appear in Tables 3-1 and 3-2. The meanings of the tabulated entries are given in paragraph E-1. Two posture codes separated by '/' are entered when two postures apply to a unit during a day.

Table E-3. Daily Combat Posture of German Line Units in the KDB

								Day									
Type	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
ID	106th ID	P	A	A	A	A	H	P	A	A	P	P	P	P	P	P	
ID	167th ID	A	A	A	H	P	P	A	P	P	P	A	A	P	P	P	
ID	168th ID	P	P	A	P	A	A	A	A	A	H	P	P	P	P	P	
ID	198th ID					H	O	A	A	P	P	P	P	P	P	P	
ID	255th ID	P	P	A	A	H	P	H	P	P	P	P	P	P	P	P	
ID	320th ID	P	A	A/H	H	P	P	P	P	P	P	P	P	P	P	P	
ID	332nd ID	A	A	A	A	A	A	A	A	A	H	A	A	H	P	P	
ID	57th ID	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
PzD	11th PzD	A	A	A	A	A	A	A	A	A	H	P	P	P	P	P	
PzD	19th PzD	P	A	A	A	A	A	A	A	A	A	A	A	H	P	P	
PzD	3d PzD	P	A	A	A	A	A	A	A	A/H	A/H	A	A/P	P/A	P/A	P	
PzD	6th PzD	D	A	A	A	A	A	A	A	A	H	A	H	P	P	P	
PzD	7th PzD	P	A	A	A	H	P	P	A	A	A	A	A	A	H	H	
PzGrD	DR SS PzGrD	P	A	A	A	H	P	P	A	H	P	A	A	H	O	O	
PzGrD	GD PzGrD	A	A	A	A	A	A	A	A	H	H	A	H	H	H	H	
PzGrD	LSSAH PzGrD	P	A	A	A	A	A	A	A	A	A	H	P	P	P	P	
PzGrD	T SS PzGrD	P	A	A	A	H	O	A	A	A	H	P	P	P	P	P	

Table E-4. Daily Combat Posture of Soviet Line Units in the KDB

								Day									
Type	Unit ID	4J	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
AbnD	6th Gds AbnD	P	P	P	P	P	O	O	O	H	H	H	H	H	H	H	
AbnD	9th Gds AbnD	P	P	P	P	P	O	H	H	A	H	H	H	H	H	H	
Det	Trufanovs Det	O	O	O	O	O	H	H	H	H	A	H	H	H	H	H	
MC	3d Mech Corps	O	O	H	H	H	H	H	H	O	H	A	P	H	H	H	
MC	5th Gds MC	O	O	O	O	O	O	H	H	H	H	H	H	H	H	H	
RD	100th RD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
RD	107th RD	P	P	P	P	P	O	H	H	H	H	H	P	P	P	P	
RD	111th RD	O	O	O	O	H	H	H	H	A	A	H	H	H	H	A	
RD	13th Gds RD	P	P	P	P	P	O	O	H	A	A	H	H	A	H	A	
RD	15th Gds RD	P	P	O	A	A	A	A	A	A	H	H	H	H	H	P	
RD	161st RD	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	
RD	183d RD	P	P	P	P	P	P	P	P	A	H	H	H	H	H	H	
RD	184th RD	P	P	P	P	P	P	H	H	A	A	H	H	H	H	A	
RD	204th RD	P	P	P	P	P	O	O	O	A	A	A	H	H	H	H	
RD	206th RD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
RD	213th RD	P	A	H	A	H	H	H	H	A	A	A	A	H	H	H	
RD	219th RD	P	P	P	P	P	H	H	H	A	H	H	H	P	P	P	
RD	237th RD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
RD	270th RD	O	H	H	H	P	P	P	P	A	H	H	H	P	P	P	
RD	305th RD	P	P	P	O	H	H	H	P	H	H	P	P	P	P	P	
RD	309th RD	P	P	P	O	H	H	H	H	A	H	A	A	H	H	H	
RD	36th Gds RD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
RD	375th RD	P	P	P	P	P	H	H	H	H	A	H	H	H	H	H	
RD	42d Gds RD	P	P	P	P	P	H	H	H	A	A	H	H	H	H	H	
RD	51st Gds RD	P	P	H	H	H	H	H	H	O	H	H	H	H	P	P	
RD	52d Gds RD	P	H	H	H	H	H	H	H	A	H	H	H	H	H	H	
RD	66th Gds RD	P	P	P	P	P	O	O	H	H	H	H	H	H	H	H	
RD	67th Gds RD	P	P	H	H	H	H	H	A	H	H	H	H	H	H	P	
RD	71st Gds RD	P	D	D	D	P	A	A	H	A	A	H	P	P	P	P	
RD	72d Gds RD	P	P	H	H	H	H	P	P	A	H	H	H	H	P	P	
RD	73d Gds RD	P	H	H	D	D	D	P	P	A	A	H	H	H	P	P	
RD	78th Gds RD	P	P	D	D	H	H	H	P	P	P	P	P	P	P	P	
RD	81st Gds RD	P	P	P	H	H	H	H	H	H	H	H	H	H	H	H	
RD	89th Gds RD	P	P	P	H	H	H	H	H	H	H	H	H	H	O	O	
RD	90th Gds RD	P	P	P	H	H	H	H	H	A	H	H	H	H	H	H	
RD	92d Gds RD	P	P	P	P	P	H	H	H	H	H	H	H	H	H	H	
RD	93d Gds RD	P	P	O	H	H	H	H	H	A	H	H	H	H	H	H	
RD	94th Gds RD	P	P	P	H	H	H	H	H	H	H	H	H	H	H	A	
RD	95th Gds RD	P	P	P	P	P	O	H	H	A	A	H	H	H	H	A	
RD	97th Gds RD	P	P	P	P	O	H	O	H	A	A	H	H	H	H	A	
TC	10th TC	O	O	O	H	H	H	H	H	A	H	A	H	H	H	H	
TC	18th TC	O	O	O	O	O	H	H	H	A	H	H	H	H	H	A	
TC	29th TC	O	O	O	O	O	H	H	H	A	H	H	H	H	A	A	
TC	2d Gds TC	O	H	A	H	A	H	H	H	A	H	H	H	H	H	A	
TC	2d TC	O	O	O	O	O	H	H	H	H	H	H	H	H	A	A	
TC	31st TC	O	O	H	H	H	H	H	H	H	A	H	H	H	H	H	
TC	5th Gds TC	O	O	H	H	A	H	H	H	A	O	H	H	H	H	H	
TC	6th TC	O	O	H	H	H	H	H	H	H	H	H	H	H	H	A	

APPENDIX F**DATA TABLES FOR PERSONNEL STATUS IN GERMAN UNITS**

F-1. INTRODUCTION. This appendix contains data tables showing personnel statistics for individual German units in the KDB. Statistics are shown only for the 24 primary combat units listed in Table 3-1. As noted in Chapter 2, personnel in small units attached to these primary units on a day are included in primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Units that are not attached to any primary parent combat unit on a day have their assets combined into a dummy unit named UNATTACHED, which is listed as a regular unit in the tables. Daily status is recorded in the KDB as of 1800 on the indicated day. The personnel status categories for a specified day are:

- a. OH denotes onhand effective personnel present for duty.
- b. TOT CAS denotes total casualties.
- c. CBT CAS denotes combat casualties, which are defined as the total casualties after excluding DNBI casualties. $\text{Combat casualties} = \text{KIA} + \text{CMIA} + \text{WIA}$.
- d. KIA denotes killed in action.
- e. CMIA denotes captured/missing in action.
- f. WIA denotes wounded in action.
- g. DNBI denotes disease/nonbattle casualties.
- h. REPLACED denotes replacement personnel received or transferred that day.
- i. RETURNS primarily denotes personnel returning from medical treatment above division.

F-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The units are listed in the same order used in Table 3-1. There is a column entry in each row (personnel category) for each calendar day in July 1943 from 4 (July) through 18 (July). A blank entry indicates no information in that category recorded that day in the KDB for that unit. Row (category) totals over the KDB scenario are given in the rightmost column for all categories except onhand.

F-3. GERMAN COMBAT UNIT PERSONNEL DATA**3rd Pz Corps**

3rd Pz Corps	DAY																18 Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
OH	7613	7606	5363	5357	2484	2473	4547	4545	3895	2879	3888	3887	2879	2879	2231		
TOT CAS	0	7	7	6	1	11	0	0	5	0	4	1	0	0	0		
CBT CAS	0	7	6	6	1	10	0	0	4	0	4	0	0	0	0		
KILLED	0	3	4	4	0	5	0	0	2	0	3	0	0	0	0		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	4	2	2	1	5	0	0	2	0	1	0	0	0	0		
DNBI	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0		
REPLACED	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0		
RETURNED	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		

48th Pz Corps

48th Pz Corps	DAY																18 Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
OH	4794	2929	2401	2401	1495	1495	1619	1619	1619	1619	1619	1619	2864	2740	2740		
TOT CAS	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CBT CAS	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KILLED	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

**4th Panzer
Army**

4th Panzer Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	3189	3189	3189	3189	3189	3189	3189	3195	3195	3195	3195	3195	3195	3195	3195		
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

52nd Corps

52nd Corps	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	2024	2020	2018	2017	2013	2012	2010	2003	1996	1989	1982	1976	1969	1962	1955		
TOT CAS	1	4	2	1	4	1	2	7	7	7	7	6	7	7	7	70	
CBT CAS	1	3	1	1	3	1	1	0	0	0	0	0	0	0	0	11	
KILLED	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	1	2	1	1	2	1	1	0	0	0	0	0	0	0	0	9	
DNBI	0	1	1	0	1	0	1	7	7	7	7	6	7	7	7	59	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Corps Raus

Corps Raus	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
TOT CAS	0	3	3	3	3	3	3	3	3	3	4	3	3	3	3	43			
CBT CAS	0	3	3	3	3	3	3	3	3	3	4	3	3	3	3	43			
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
WIA	0	3	3	3	3	3	3	3	3	3	4	3	3	3	3	43			
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	919	0	0	919			
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

II SS Pz Corps

II SS Pz Corps	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	3321	3323	3322	2414	2415	2420	2424	2442	2446	2450	2452	2457	2444	2590	2375			
TOT CAS	1	3	6	3	4	0	1	0	1	1	3	0	1	4	1	29		
CBT CAS	0	3	5	3	3	0	0	0	0	1	2	0	0	4	0	21		
KILLED	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	3	5	2	3	0	0	0	0	1	2	0	0	3	0	19		
DNBI	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	8		
REPLACED	5	5	5	5	5	5	5	18	5	5	5	5	5	5	5	88		
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Prov Army Kempf	DAY														18 Total	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
OH	2728	2719	2710	2701	2693	2684	2676	2667	2659	3099	3090	3081	3073	3064	3056	
TOT CAS	0	9	9	9	8	9	8	9	8	9	9	9	8	9	8	121
CBT CAS	0	9	9	9	8	9	8	9	8	9	9	9	8	9	8	121
KILLED	0	2	2	2	1	2	1	2	1	2	2	2	1	2	1	23
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WIA	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	449	0	0	0	0	0	449
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

106th ID	DAY														18 Total	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
OH	19848	18667	18389	17965	17824	17685	16565	15402	15260	16348	16105	16030	16426	14166	12798	
TOT CAS	8	1186	283	430	146	144	141	84	147	246	120	80	60	27	18	3120
CBT CAS	5	1183	279	426	142	141	138	80	143	242	117	77	56	23	14	3066
KILLED	1	233	63	67	15	15	15	12	16	44	21	14	10	5	2	533
CMIA	0	0	45	0	0	0	0	0	0	9	3	1	1	0	4	63
WIA	4	950	171	359	127	126	123	68	127	189	93	62	45	18	8	2470
DNBI	3	3	4	4	4	3	3	4	4	4	3	3	4	4	4	54
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	450	0	0	450
RETURNED	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	80

167th ID	DAY														18 Total	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
OH	14347	14012	13901	13860	13800	14380	13688	13679	13274	13109	13005	12900	12796	15410	15795	
TOT CAS	218	343	120	49	68	91	40	17	414	114	113	113	113	114	199	2126
CBT CAS	209	334	111	40	58	82	31	8	405	104	104	104	104	105	189	1988
KILLED	35	39	18	5	5	18	9	1	93	26	26	26	26	26	36	389
CMIA	2	10	0	0	1	1	0	0	6	5	5	5	5	5	3	48
WIA	172	285	93	35	52	63	22	7	306	73	73	73	73	74	150	1551
DNBI	9	9	9	9	10	9	9	9	9	10	9	9	9	9	10	138
REPLACED	2	2	2	2	1	8	2	2	2	448	2	2	2	2	1	480
RETURNED	7	6	7	6	7	6	7	6	7	6	7	6	7	6	7	98

168th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	15880	15678	15015	14926	14729	14532	14413	14297	14179	15176	13945	13828	13710	14044	13926		
TOT CAS	10	210	671	97	205	205	127	124	126	128	126	125	126	124	126	2530	
CBT CAS	1	201	662	88	196	196	118	115	117	119	117	116	117	115	117	2395	
KILLED	0	9	37	16	77	76	19	18	19	19	19	18	19	18	19	383	
CMIA	1	0	2	1	16	17	4	3	3	3	3	4	3	3	3	66	
WIA	0	192	623	71	103	103	95	94	95	97	95	94	95	94	95	1946	
DNBI	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	135	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	450	
RETURNED	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	120	

198th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	0	0	0	0	14641	14615	14589	14468	14381	14751	14683	14659	14642	15740	15725		
TOT CAS	0	0	0	0	33	33	33	128	96	166	75	31	25	28	22	670	
CBT CAS	0	0	0	0	16	16	16	111	85	160	69	20	14	15	7	529	
KILLED	0	0	0	0	3	3	3	19	4	25	15	2	5	4	2	85	
CMIA	0	0	0	0	1	1	1	10	0	0	0	0	0	0	0	13	
WIA	0	0	0	0	12	12	12	82	81	135	54	18	9	11	5	431	
DNBI	0	0	0	0	17	17	17	17	11	6	6	11	11	13	15	141	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	0	0	0	0	8	7	7	7	9	7	7	7	8	7	7	81	

255th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	14107	14189	14033	13945	13859	13771	13686	13658	13773	14302	14275	13695	13670	14338	15705		
TOT CAS	7	93	163	94	93	94	92	35	32	33	33	32	32	34	32	899	
CBT CAS	1	87	157	88	87	88	86	28	26	27	27	26	26	28	26	808	
KILLED	1	12	22	13	12	13	12	5	5	5	5	4	5	5	5	124	
CMIA	0	2	0	2	2	2	2	1	0	0	1	0	0	1	0	13	
WIA	0	73	135	73	73	73	72	22	21	22	21	22	21	22	21	671	
DNBI	6	6	6	6	6	6	6	7	6	6	6	6	6	6	6	91	
REPLACED	0	0	0	0	0	0	0	0	141	0	0	0	0	0	0	141	
RETURNED	6	7	7	6	7	6	7	7	6	7	6	7	7	6	7	99	

320th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	20030	18364	17811	17628	18367	18316	18144	16994	16961	15224	15085	15021	14988	13841	13797		
TOT CAS	32	1670	557	187	65	55	42	44	37	94	143	68	37	32	48	3111	
CBT CAS	25	1663	550	180	58	48	35	37	30	87	136	61	30	25	41	3006	
KILLED	2	254	76	28	7	6	6	8	6	14	31	16	5	7	3	469	
CMIA	0	202	137	33	6	0	0	0	0	0	0	0	0	0	0	378	
WIA	23	1207	337	119	45	42	29	29	24	73	105	45	25	18	38	2159	
DNBI	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	105	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	60	

332nd ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	15959	15901	15816	15204	14196	13972	13625	13209	13123	12482	12396	11755	11669	10888	11342		
TOT CAS	71	69	624	623	233	235	234	427	97	97	97	97	97	96	85	3182	
CBT CAS	50	48	603	602	212	214	213	406	76	76	76	76	76	75	64	2867	
KILLED	21	20	48	48	37	33	33	68	13	13	13	13	13	12	13	398	
CMIA	5	5	3	2	3	16	15	37	7	7	7	7	7	7	1	129	
WIA	24	23	552	552	172	165	165	301	56	56	56	56	56	56	50	2340	
DNBI	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	315	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	165	

57th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	16048	16043	16038	16034	16030	16025	16022	16132	16126	16121	16116	16111	16105	16100	16094		
TOT CAS	40	13	12	12	12	13	11	17	13	13	13	13	14	13	13	222	
CBT CAS	36	9	8	8	8	9	7	12	9	9	9	9	10	9	9	161	
KILLED	5	2	1	2	1	2	1	3	2	2	2	2	2	2	2	31	
CMIA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
WIA	31	7	7	6	7	7	6	8	7	7	7	7	8	7	7	129	
DNBI	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	61	
REPLACED	0	0	0	0	0	0	0	119	0	0	0	0	0	0	0	119	
RETURNED	8	8	7	8	8	8	8	8	7	8	8	8	8	8	7	117	

11th PzD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
OH	1589	1572	1563	1550	1540	1533	1519	1507	1488	1510	1494	1599	1594	1593	16515	
	4	3	6	8	7	1	1	3	0	0	4	0	8	4		
TOT CAS	126	184	98	141	113	88	152	131	204	213	168	76	54	27	26	1801
CBT CAS	121	178	93	136	108	82	147	126	199	207	163	71	49	21	21	1722
KILLED	26	18	9	23	22	11	12	10	33	29	17	8	5	4	7	234
CMIA	0	1	3	0	4	0	0	0	9	0	16	5	1	0	0	39
WIA	95	159	81	113	82	71	135	116	157	178	130	58	43	17	14	1449
DNBI	5	6	5	5	5	6	5	5	5	6	5	5	5	6	5	79
REPLACED	1	2	1	2	1	2	1	2	1	422	1	2	1	2	1	442
RETURNED	11	11	10	11	11	10	11	11	10	11	11	10	11	11	10	160

19th PzD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
OH	1490	1441	1542	1505	1532	1431	1316	1313	1525	1522	1518	1515	1511	1508	15343	
	6	3	9	6	9	1	8	7	3	3	6	6	6	6		
TOT CAS	8	505	114	385	383	382	45	42	45	42	49	42	52	42	45	2181
CBT CAS	0	497	106	377	375	374	37	34	37	34	41	34	44	34	37	2061
KILLED	0	62	13	48	47	47	5	4	5	4	7	4	5	4	5	260
CMIA	0	22	5	17	17	16	2	1	2	1	2	1	2	1	2	91
WIA	0	413	88	312	311	311	30	29	30	29	32	29	37	29	30	1710
DNBI	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	120
REPLACED	0	0	0	0	0	0	0	0	484	0	0	0	0	0	290	774
RETURNED	12	12	12	12	12	12	12	11	12	12	12	12	12	12	12	179

3d PzD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
OH	13968	13793	13716	13639	14038	13905	13844	13807	13782	14172	13938	13868	13360	13429	14503	
TOT CAS	163	179	81	81	85	137	65	41	29	42	238	74	32	54	40	1341
CBT CAS	155	170	73	72	77	128	57	32	21	33	230	65	24	45	32	1214
KILLED	24	23	14	7	14	16	15	4	5	5	51	16	3	5	2	204
CMIA	4	2	0	0	0	10	0	0	0	0	4	1	0	0	0	21
WIA	127	145	59	65	63	102	42	28	16	28	175	48	21	40	30	989
DNBI	8	9	8	9	8	9	8	9	8	9	8	9	8	9	8	127
REPLACED	0	0	0	0	0	0	0	0	0	428	0	0	0	119	0	547
RETURNED	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	60

6th PzD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	20229	20156	18935	18784	19242	19728	18150	19265	20626	21536	20420	19674	19576	18400	18302		
TOT CAS	6	84	114	162	166	173	164	114	111	117	114	109	109	109	109	1761	
CBT CAS	0	78	108	156	160	167	158	107	105	111	108	103	103	103	103	1670	
KILLED	0	11	9	26	25	31	26	17	16	19	15	16	15	16	15	257	
CMIA	0	4	0	2	2	2	1	1	2	1	2	1	2	1	2	23	
WIA	0	63	99	128	133	134	131	89	87	91	91	86	86	86	86	1390	
DNBI	6	6	6	6	6	6	6	7	6	6	6	6	6	6	6	91	
REPLACED	0	0	0	0	0	0	0	199	479	0	0	0	0	0	0	678	
RETURNED	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	165	

7th PzD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
OH	15705	15608	17707	17351	18613	18261	18701	19327	17305	16168	17236	17858	17822	16300	15016			
TOT CAS	9	104	143	363	360	359	28	29	27	27	51	33	42	26	27	1628		
CBT CAS	0	96	135	354	352	351	19	21	19	18	43	25	33	18	19	1503		
KILLED	0	10	28	55	55	55	3	3	3	3	5	3	3	3	3	232		
CMIA	0	0	1	9	9	9	1	0	1	0	1	0	1	0	1	33		
WIA	0	86	106	290	288	287	15	18	15	15	37	22	29	15	15	1238		
DNBI	9	8	8	9	8	8	9	8	8	9	8	8	9	8	8	125		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0	139		
RETURNED	6	7	6	7	6	7	6	7	6	7	6	7	6	7	6	97		

DR SS PzGrD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	20303	19979	19715	19590	19325	19147	19030	18815	18554	18476	18171	18040	17798	17745	17213		
TOT CAS	23	340	280	141	280	193	132	230	263	80	307	133	244	55	29	2730	
CBT CAS	3	321	260	122	260	174	112	211	243	61	287	114	224	36	9	2437	
KILLED	0	75	53	18	58	23	16	29	41	17	58	26	58	10	1	483	
CMIA	0	0	2	1	0	2	2	1	12	0	0	0	0	3	0	23	
WIA	3	246	205	103	202	149	94	181	190	44	229	88	166	23	8	1931	
DNBI	20	19	20	19	20	19	20	19	20	19	20	19	20	19	20	293	
REPLACED	16	15	15	15	15	15	15	15	0	0	0	0	0	0	0	121	
RETURNED	1	1	1	1	0	0	0	0	2	2	2	2	2	2	2	18	

GD PzGrD

GD PzGrD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	21524	23011	22859	22634	23478	23061	22824	22685	22487	22409	22324	22296	21469	21474	21442		
TOT CAS	36	405	180	253	396	445	264	167	226	106	113	55	69	23	60	2798	
CBT CAS	36	405	180	253	396	445	264	167	226	106	113	55	42	23	60	2771	
KILLED	9	66	23	49	63	71	33	32	39	12	7	7	6	4	21	442	
CMIA	0	5	0	0	8	16	7	13	23	5	2	3	0	0	0	82	
WIA	27	334	157	204	325	358	224	122	164	89	104	45	36	19	39	2247	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	27	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	28	27	28	28	28	28	27	28	28	28	28	27	28	28	28	417	

LSSAH PzGrD

LSSAH PzGrD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	23160	22557	22035	21844	21706	21543	21487	21149	20774	20952	20800	20669	20563	20521	18305		
TOT CAS	10	611	530	199	146	171	64	346	383	335	160	139	114	50	13	3271	
CBT CAS	1	602	521	190	137	162	55	337	374	326	151	130	105	41	4	3136	
KILLED	0	89	92	24	32	46	18	33	48	64	21	24	16	5	2	514	
CMIA	0	17	19	2	6	3	3	0	5	2	16	3	3	2	0	81	
WIA	1	496	410	164	99	113	34	304	321	260	114	103	86	34	2	2541	
DNBI	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	135	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNED	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	120	

T SS PzGrD

T SS PzGrD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	19795	19639	19348	19692	19568	18808	19091	18625	18308	18148	17975	17910	17819	17765	17139		
TOT CAS	27	170	305	175	138	111	392	480	338	178	193	83	111	72	141	2914	
CBT CAS	9	152	287	157	120	93	374	462	320	160	175	65	93	54	123	2644	
KILLED	4	31	53	39	28	19	77	77	69	24	20	19	17	5	21	503	
CMIA	0	2	0	1	0	5	5	0	16	0	1	0	2	3	3	38	
WIA	5	119	234	117	92	69	292	385	235	136	154	46	74	46	99	2103	
DNBI	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	270	
REPLACED	13	13	13	13	13	7	13	13	19	17	18	17	18	17	18	222	
RETURNED	1	1	1	1	1	1	1	1	2	1	2	1	2	1	2	19	

UNATTACHED	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
OH	447	279	279	684	684	684	1803	1803	1803	2922	2922	2922	3969	6186	6963		
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
RETURNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX G**DATA TABLES FOR PERSONNEL STATUS IN SOVIET UNITS**

G-1. INTRODUCTION. This appendix contains data tables showing personnel statistics for individual Soviet units in the KDB. Statistics are shown only for the 48 primary combat units listed in Table 3-2. As noted in Chapter 2, personnel in small units attached to these primary units on a day are included in primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Units that are not attached to any parent on a day have their assets combined either into assets of a dummy unit named UNATTACHED, if that unit is attached to a parent on at least 1 day of the campaign, or into assets of a dummy unit named OTHER NONDIV, if that unit is never attached to a parent during the campaign. Each of these dummy units is listed like a regular unit in the tables. Daily status is recorded in the KDB as of 1800 on the indicated day. The personnel status categories are:

- a. OH denotes onhand effective personnel present for duty.
- b. TOT CAS denotes total casualties.
- c. CBT CAS denotes combat casualties, which are defined as the total casualties after excluding DNBI casualties. $\text{Combat casualties} = \text{KIA} + \text{CMIA} + \text{WIA}$.
- d. KIA denotes killed in action.
- e. CMIA denotes captured/missing in action.
- f. WIA denotes wounded in action.
- g. DNBI denotes disease/nonbattle casualties.
- h. REPLACED denotes replacement personnel received or transferred that day. A negative entry denotes replacements transferred out of the unit.
- i. RETURNS primarily denotes personnel returning from medical treatment above division.

G-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The units are listed in the same order used in Table 3-2. There is a column entry in each row (personnel category) for each calendar day in July 1943 from 4 (July) through 18 (July). A blank entry indicates no information in that category recorded that day in the KDB for that unit. Row (category) totals over the KDB scenario are given in the rightmost column for all categories except onhand.

G-3. SOVIET COMBAT UNIT PERSONNEL DATA**6th Gds AbnD**

6th Gds AbnD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8916	8916	8916	8916	8916	8916	8916	8904	8840	8785	8711	8699	8687	8675	8663		
TOT CAS	0	0	0	0	0	0	0	12	64	55	74	12	12	12	12	253	
CBT CAS	0	0	0	0	0	0	0	0	52	43	62	0	0	0	0	157	
KILLED	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	6	
CMIA	0	0	0	0	0	0	0	0	35	35	35	0	0	0	0	105	
WIA	0	0	0	0	0	0	0	0	15	8	23	0	0	0	0	46	
DNBI	0	0	0	0	0	0	0	12	12	12	12	12	12	12	12	96	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

9th Gds AbnD

9th Gds AbnD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8262	8262	8262	8262	8845	8845	8845	8552	8167	7784	7401	7281	7152	7152	6904		
TOT CAS	0	0	0	0	0	0	0	293	385	383	383	120	129	0	248	1941	
CBT CAS	0	0	0	0	0	0	0	293	385	383	383	120	129	0	248	1941	
KILLED	0	0	0	0	0	0	0	83	110	109	109	25	32	0	164	632	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	0	210	275	274	274	95	97	0	84	1309	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	583	0	0	0	0	0	0	0	0	0	0	583	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Trufanovs
Det**

Trufanovs Det	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	2171	2171	2171	2171	2171	2171	2171	2171	2149	2135	2090	2090	2090	2090	2090		
TOT CAS	0	0	0	0	0	0	0	0	22	14	45	0	0	0	0	81	
CBT CAS	0	0	0	0	0	0	0	0	22	14	45	0	0	0	0	81	
KILLED	0	0	0	0	0	0	0	0	5	9	18	0	0	0	0	32	
CMIA	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	
WIA	0	0	0	0	0	0	0	0	7	5	27	0	0	0	0	39	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

1st Tank
Army

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
OH	5079	5517	6190	7776	7753	7993	8817	7235	6718	5781	5446	5446	5446	5446	5446	
TOT CAS	0	0	23	57	49	329	133	106	19	3	16	0	0	0	0	735
CBT CAS	0	0	23	56	48	319	132	103	17	3	16	0	0	0	0	717
KILLED	0	0	13	22	13	72	42	26	4	0	4	0	0	0	0	196
CMIA	0	0	4	11	9	112	22	29	6	1	5	0	0	0	0	199
WIA	0	0	6	23	26	135	68	48	7	2	7	0	0	0	0	322
DNBI	0	0	0	1	1	10	1	3	2	0	0	0	0	0	0	18
REPLACED	0	0	0	-51	26	0	0	0	0	0	0	0	0	0	0	-25
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

22d Gds RC

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
OH	419	655	642	642	634	614	614	614	614	614	614	614	614	614	614	
TOT CAS	0	4	13	0	8	20	0	0	0	0	0	0	0	0	0	45
CBT CAS	0	4	13	0	8	20	0	0	0	0	0	0	0	0	0	45
KILLED	0	1	6	0	1	7	0	0	0	0	0	0	0	0	0	15
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WIA	0	3	7	0	7	13	0	0	0	0	0	0	0	0	0	30
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

23d Gds RC

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
OH	419	419	419	419	419	419	419	1095	1093	2675	2671	1994	1990	1986	1982	
TOT CAS	0	0	0	0	0	0	0	9	2	5	4	4	4	4	4	36
CBT CAS	0	0	0	0	0	0	0	9	2	5	4	4	4	4	4	36
KILLED	0	0	0	0	0	0	0	2	0	1	1	1	1	1	1	8
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WIA	0	0	0	0	0	0	0	7	2	4	3	3	3	3	3	28
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

24th Gds RC

	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	2335	584	1628	2310	2298	2287	2281	419	419	419	1103	1103	1103	1103	1103	
TOT CAS	0	0	9	14	12	11	6	0	0	0	0	0	0	0	0	52
CBT CAS	0	0	9	14	12	11	6	0	0	0	0	0	0	0	0	52
KILLED	0	0	2	4	7	6	2	0	0	0	0	0	0	0	0	21
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WIA	0	0	7	10	5	5	4	0	0	0	0	0	0	0	0	31
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

25th Gds RC

	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	1240	970	1109	1590	1103	1268	2473	1320	1103	1103	419	419	419	419	419	
TOT CAS	0	46	6	6	0	0	21	0	0	0	0	0	0	0	0	79
CBT CAS	0	46	6	6	0	0	21	0	0	0	0	0	0	0	0	79
KILLED	0	19	2	2	0	0	1	0	0	0	0	0	0	0	0	24
CMIA	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
WIA	0	27	4	4	0	0	17	0	0	0	0	0	0	0	0	52
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	52
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

32d Gds RC

	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	419	419	419	419	419	419	419	631	631	631	631	631	631	1304	1304	
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33d Gds RC

33d Gds RC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	419	419	419	419	419	419	419	1483	1483	1483	1483	1483	1483	2178	2178			
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

35th Gds RC

35th Gds RC	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	419	419	419	419	419	419	1492	419	419	419	2104	2099	2099	2094	2094		
TOT CAS	0	0	0	0	0	0	35	0	0	0	11	5	0	5	0	56	
CBT CAS	0	0	0	0	0	0	35	0	0	0	11	5	0	5	0	56	
KILLED	0	0	0	0	0	0	10	0	0	0	3	1	0	1	0	15	
CMIA	0	0	0	0	0	0	2	0	0	0	1	1	0	1	0	5	
WIA	0	0	0	0	0	0	23	0	0	0	7	3	0	3	0	36	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

40th Army

40th Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	11593	13886	11454	5182	4892	4105	4337	3031	3020	2791	2027	2027	2027	2027	2027		
TOT CAS	0	0	1	12	44	93	14	4	11	0	0	0	0	0	0	179	
CBT CAS	0	0	1	12	44	93	14	4	11	0	0	0	0	0	0	179	
KILLED	0	0	0	1	25	35	5	4	4	0	0	0	0	0	0	74	
CMIA	0	0	0	0	6	20	0	0	2	0	0	0	0	0	0	28	
WIA	0	0	1	11	13	38	9	0	5	0	0	0	0	0	0	77	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

47th RC

47th RC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419			
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

48th RC

48th RC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	419	419	419	419	419	419	419	419	419	419	419	419	419	419	419			
TOT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CBT CAS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

49th RC

49th RC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	419	419	419	419	419	419	419	3417	1089	1089	419	419	419	419	419			
TOT CAS	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	17		
CBT CAS	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	17		
KILLED	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3		
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WIA	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

52d RC

52d RC	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	419	419	2192	2019	2019	2711	2019	419	419	419	419	419	419	419	419		
TOT CAS	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
CBT CAS	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
KILLED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CMIA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
WIA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

5th Gds Army

5th Gds Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	5294	5296	5298	5300	5302	5304	5308	6007	5993	5293	5293	5275	5275	5272	5275		
TOT CAS	0	1	1	1	1	1	0	0	14	5	0	18	0	3	0	45	
CBT CAS	0	0	0	0	0	0	0	0	14	5	0	18	0	3	0	40	
KILLED	0	0	0	0	0	0	0	0	8	2	0	2	0	0	0	12	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	0	0	6	3	0	16	0	3	0	28	
DNBI	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	5	
REPLACED	0	3	3	3	3	3	3	0	0	0	0	0	0	0	3	21	
RETURNS	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	5	

5 Gds Tk Army

5 Gds Tk Army	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	6226	6226	6226	6226	6226	6226	5530	5530	5432	5408	5408	5406	7186	5406	5400			
TOT CAS	0	0	0	0	0	0	0	0	98	24	0	2	10	0	6	140		
CBT CAS	0	0	0	0	0	0	0	0	91	23	0	2	10	0	6	132		
KILLED	0	0	0	0	0	0	0	0	24	13	0	2	1	0	1	41		
CMIA	0	0	0	0	0	0	0	0	28	2	0	0	0	0	2	32		
WIA	0	0	0	0	0	0	0	0	39	8	0	0	9	0	3	59		
DNBI	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

69th Army

69th Army	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	3759	3759	2444	2441	2381	2376	5519	4158	4158	4111	4029	3945	5054	5050	5046			
TOT CAS	0	0	0	3	60	5	11	0	0	47	82	84	2	4	4	302		
CBT CAS	0	0	0	3	60	5	11	0	0	47	82	84	2	4	4	302		
KILLED	0	0	0	1	10	2	2	0	0	10	11	12	0	1	1	50		
CMIA	0	0	0	0	3	0	0	0	0	25	59	59	0	0	0	146		
WIA	0	0	0	2	47	3	9	0	0	12	12	13	2	3	3	106		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

6th Gds Army

6th Gds Army	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	5432	4740	5277	5256	3237	3294	3265	6566	6615	5033	5033	5028	5700	7025	7153			
TOT CAS	0	5	5	21	241	1	36	13	6	6	0	11	16	17	0	378		
CBT CAS	0	5	5	21	241	1	36	13	6	6	0	11	16	17	0	378		
KILLED	0	1	1	3	39	0	6	3	2	1	0	2	2	3	0	63		
CMIA	0	0	0	0	13	0	2	1	1	0	0	0	0	0	0	17		
WIA	0	4	4	18	189	1	28	9	3	5	0	9	14	14	0	298		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	27	-10	0	11	0	0	0	0	0	128	156		
RETURNS	0	0	0	0	0	31	17	0	44	11	0	6	0	0	0	109		

7th Gds Army

7th Gds Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	11723	8550	8524	8944	8853	9529	9509	9525	9211	9175	9173	9662	9662	9658	10456		
TOT CAS	0	25	26	80	91	17	55	14	25	36	44	1	0	4	1	419	
CBT CAS	0	25	26	80	91	17	55	14	25	36	44	1	0	4	1	419	
KILLED	0	5	8	23	20	3	8	3	5	12	4	0	0	0	0	91	
CMIA	0	0	0	6	0	0	0	0	1	0	1	0	0	0	0	8	
WIA	0	20	18	51	71	14	47	11	19	24	39	1	0	4	1	320	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	35	30	0	0	42	0	0	0	0	107	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	490	0	0	799	1289	

Voronezh Front

Voronezh Front	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	2498	4484	3788	3788	3787	3624	3624	4115	5506	7078	7494	7489	7484	7479	7479		
TOT CAS	0	0	0	0	1	0	0	0	5	5	5	5	5	5	0	31	
CBT CAS	0	0	0	0	1	0	0	0	5	5	5	5	5	5	0	31	
KILLED	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	6	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	1	0	0	0	4	4	4	4	4	4	0	25	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	-96	54	0	-86	0	0	0	0	-128	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

3d Mech
Corps

3d Mech Corps	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	16332	16328	16124	16021	14831	15506	14861	14196	13038	12515	12473	12446	13144	13132	12947		
TOT CAS	0	4	204	1310	1190	1156	645	665	105	13	42	27	3	12	2	5378	
CBT CAS	0	0	200	1307	1187	1153	642	662	102	10	39	24	0	9	2	5337	
KILLED	0	0	55	309	351	326	102	104	38	3	18	6	0	1	0	1313	
CMIA	0	0	0	311	85	85	85	85	0	0	0	0	0	0	2	653	
WIA	0	0	145	687	751	742	455	473	64	7	21	18	0	8	0	3371	
DNBI	0	4	4	3	3	3	3	3	3	3	3	3	3	3	0	41	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

5th Gds MC

5th Gds MC	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	13451	13451	13451	13451	13451	13451	13451	13451	13053	12279	11813	11424	11330	11330	11330		
TOT CAS	0	0	0	0	0	0	0	0	398	774	466	389	94	0	0	2121	
CBT CAS	0	0	0	0	0	0	0	0	395	768	462	386	94	0	0	2105	
KILLED	0	0	0	0	0	0	0	0	96	186	112	93	23	0	0	510	
CMIA	0	0	0	0	0	0	0	0	51	99	59	50	12	0	0	271	
WIA	0	0	0	0	0	0	0	0	248	483	291	243	59	0	0	1324	
DNBI	0	0	0	0	0	0	0	0	3	6	4	3	0	0	0	16	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

100th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7248	7248	7248	7478	7467	7463	7460	7457	7454	7209	7206	7204	7203	7200	7178		
TOT CAS	1	0	0	10	11	4	3	3	3	5	3	2	1	3	22	71	
CBT CAS	1	0	0	10	11	4	3	3	3	5	3	2	1	3	22	71	
KILLED	0	0	0	2	1	0	0	0	0	1	0	0	0	0	2	6	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	1	0	0	8	10	4	3	3	3	4	3	2	1	3	20	65	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

107th RD	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	9653	9653	9649	9644	9637	9565	9419	9350	9264	9185	8953	7854	8205	8196	8215	
TOT CAS	0	0	4	5	7	72	8	69	86	79	232	18	69	9	9	667
CBT CAS	0	0	4	5	7	70	8	67	83	76	224	18	66	9	9	646
KILLED	0	0	0	0	2	7	1	5	9	7	18	2	5	1	1	58
CMIA	0	0	2	2	2	22	2	21	22	23	71	5	21	2	2	197
WIA	0	0	2	3	3	41	5	41	52	46	135	11	40	6	6	391
DNBI	0	0	0	0	0	2	0	2	3	3	8	0	3	0	0	21
REPLACED	0	0	0	0	0	0	-138	0	0	0	0	-157	0	0	28	-267
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

111th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7637	7697	7729	7761	7793	7826	7979	8036	7459	7164	7048	6899	6862	6810	6704		
TOT CAS	0	0	0	0	0	0	56	0	1763	295	116	149	37	52	106	2574	
CBT CAS	0	0	0	0	0	0	56	0	1756	288	109	143	31	46	100	2529	
KILLED	0	0	0	0	0	0	0	0	423	53	11	26	7	8	16	544	
CMIA	0	0	0	0	0	0	38	0	25	4	1	2	1	1	1	73	
WIA	0	0	0	0	0	0	18	0	1308	231	97	115	23	37	83	1912	
DNBI	0	0	0	0	0	0	0	0	7	7	7	6	6	6	6	45	
REPLACED	0	60	32	32	32	33	209	48	0	0	0	0	0	0	0	446	
RETURNS	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	

13th Gds RD

13th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8239	8423	8607	8791	8975	8845	8845	8845	8570	8794	9606	9339	9275	8473	8231		
TOT CAS	0	0	0	0	0	130	0	0	275	456	190	267	64	175	242	1799	
CBT CAS	0	0	0	0	0	0	0	0	275	456	190	267	64	175	242	1669	
KILLED	0	0	0	0	0	0	0	0	49	72	49	38	59	42	53	362	
CMIA	0	0	0	0	0	0	0	0	44	64	4	6	1	0	0	119	
WIA	0	0	0	0	0	0	0	0	182	320	137	223	4	133	189	1188	
DNBI	0	0	0	0	0	130	0	0	0	0	0	0	0	0	0	130	
REPLACED	0	184	184	184	184	0	0	0	0	0	0	0	0	0	0	736	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

15th Gds RD

15th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8684	8684	10658	10433	8871	8814	8241	7766	7535	7170	7154	7151	7148	7135	6905		
TOT CAS	0	0	46	225	204	57	573	475	231	365	16	3	3	13	230	2441	
CBT CAS	0	0	46	225	204	57	573	475	231	365	16	3	3	13	230	2441	
KILLED	0	0	10	64	61	15	189	146	13	77	4	1	0	0	52	632	
CMIA	0	0	9	10	12	8	8	19	0	0	2	0	0	0	0	68	
WIA	0	0	27	151	131	34	376	310	218	288	10	2	3	13	178	1741	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

161st RD

161st RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7249	7249	7249	8429	8652	6394	6109	5927	5897	5888	5870	5863	5847	5847	5774		
TOT CAS	0	0	0	4	23	1097	39	182	30	9	18	7	16	0	73	1498	
CBT CAS	0	0	0	4	23	1097	39	182	30	9	18	7	16	0	73	1498	
KILLED	0	0	0	0	8	154	9	70	9	0	7	1	6	0	14	278	
CMIA	0	0	0	0	4	9	0	2	0	0	0	0	0	0	0	15	
WIA	0	0	0	4	11	934	30	110	21	9	11	6	10	0	59	1205	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

183d RD

183d RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7981	7981	7970	7959	7940	7796	7651	7517	7394	7311	7268	7224	7224	7224	7224		
TOT CAS	0	0	11	11	19	144	145	134	123	83	43	44	0	0	0	757	
CBT CAS	0	0	10	10	18	142	145	130	123	80	43	44	0	0	0	745	
KILLED	0	0	5	5	7	12	46	11	33	7	11	11	0	0	0	148	
CMIA	0	0	0	0	0	44	0	41	0	25	0	0	0	0	0	110	
WIA	0	0	5	5	11	86	99	78	90	48	32	33	0	0	0	487	
DNBI	0	0	1	1	1	2	0	4	0	3	0	0	0	0	0	12	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

184th RD

184th RD	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	8626	8626	8626	8624	8624	8539	8537	8535	6789	6717	6618	5860	6287	6287	6202	
TOT CAS	0	0	0	2	0	85	2	2	2419	72	99	85	0	0	85	2851
CBT CAS	0	0	0	2	0	85	2	2	2419	72	99	85	0	0	85	2851
KILLED	0	0	0	2	0	23	1	1	322	20	26	23	0	0	23	441
CMIA	0	0	0	0	0	0	0	0	1079	0	0	0	0	0	0	1079
WIA	0	0	0	0	0	62	1	1	1018	52	73	62	0	0	62	1331
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

204th RD

204th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7256	7256	7249	7249	7249	7249	7249	7238	6821	6013	5608	5608	5606	5600	5529		
TOT CAS	0	0	7	0	1	0	0	11	417	808	623	0	95	6	170	2138	
CBT CAS	0	0	1	0	0	0	0	11	417	808	623	0	94	3	170	2127	
KILLED	0	0	0	0	0	0	0	4	180	253	220	0	33	2	60	752	
CMIA	0	0	0	0	0	0	0	0	54	91	74	0	11	0	20	250	
WIA	0	0	1	0	0	0	0	7	183	464	329	0	50	1	90	1125	
DNBI	0	0	6	0	1	0	0	0	0	0	0	0	1	3	0	11	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	1	0	0	0	0	0	218	0	93	0	99	411	

206th RD

206th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7591	7588	7586	8077	8064	8047	8038	8025	8024	8257	8255	8244	8242	8234	8222		
TOT CAS	8	3	2	5	13	17	9	13	1	7	2	11	2	8	12	113	
CBT CAS	8	3	2	5	13	17	9	13	1	7	2	11	2	8	12	113	
KILLED	4	0	0	1	2	6	2	3	0	1	0	5	0	0	2	26	
CMIA	0	0	0	1	1	2	4	5	0	0	0	0	0	0	0	13	
WIA	4	3	2	3	10	9	3	5	1	6	2	6	2	8	10	74	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

213th RD

213th RD	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	8194	9412	7724	7252	6780	6308	5836	5828	5492	5483	5395	5382	5286	5264	5242	
TOT CAS	8	9	470	472	472	472	472	8	336	9	88	13	96	22	22	2969
CBT CAS	8	9	470	472	472	472	472	8	336	9	88	13	96	22	22	2969
KILLED	1	1	116	116	116	116	116	3	139	1	40	1	21	7	4	798
CMIA	0	0	45	46	46	46	46	0	21	0	0	0	0	1	0	251
WIA	7	8	309	310	310	310	310	5	176	8	48	12	75	14	18	1920
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

219th RD

219th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8636	8636	8636	9163	9163	8636	8484	8333	8183	8033	7883	7770	7770	7770	7692		
TOT CAS	0	0	0	0	0	0	152	151	150	150	150	113	0	0	78	944	
CBT CAS	0	0	0	0	0	0	152	151	150	150	150	113	0	0	78	944	
KILLED	0	0	0	0	0	0	32	32	31	31	31	24	0	0	30	211	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	120	119	119	119	119	89	0	0	48	733	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

237th RD

237th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8015	8000	7979	7707	7655	7165	7149	7147	7126	7117	7099	7093	7087	7077	7075		
TOT CAS	11	15	21	22	52	15	16	2	21	9	18	6	6	10	2	226	
CBT CAS	11	15	21	22	52	15	16	2	21	9	18	6	6	10	2	226	
KILLED	4	2	4	5	8	1	4	0	1	2	1	1	0	0	0	33	
CMIA	0	1	4	4	5	0	0	0	0	0	0	0	0	0	0	14	
WIA	7	12	13	13	39	14	12	2	20	7	17	5	6	10	2	179	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

270th RD

270th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7590	7590	7668	7746	7824	7901	7978	8055	7723	7369	7355	7305	7264	7264	7140		
TOT CAS	0	0	0	0	0	0	0	0	1474	354	14	50	41	0	124	2057	
CBT CAS	0	0	0	0	0	0	0	0	1474	354	14	50	41	0	124	2057	
KILLED	0	0	0	0	0	0	0	0	153	82	0	5	15	0	27	282	
CMIA	0	0	0	0	0	0	0	0	180	41	1	6	5	0	0	233	
WIA	0	0	0	0	0	0	0	0	1141	231	13	39	21	0	97	1542	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	78	78	78	77	77	77	0	0	0	0	0	0	0	465	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

305th RD

305th RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7916	8329	8329	8329	8329	8279	8181	7745	7305	7305	7063	6810	7085	6390	6390		
TOT CAS	0	0	0	0	0	50	98	436	437	0	252	253	0	0	0	1526	
CBT CAS	0	0	0	0	0	50	98	436	437	0	252	253	0	0	0	1526	
KILLED	0	0	0	0	0	8	16	69	69	0	40	40	0	0	0	242	
CMIA	0	0	0	0	0	0	1	5	5	0	3	3	0	0	0	17	
WIA	0	0	0	0	0	42	81	362	363	0	209	210	0	0	0	1267	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

309th RD

309th RD	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	7249	7249	7249	9152	9100	9040	9001	8641	8631	6833	6592	6575	6574	6554	6554			
TOT CAS	0	0	0	0	52	60	39	360	10	35	241	17	1	20	0	835		
CBT CAS	0	0	0	0	52	60	39	360	10	35	241	17	1	20	0	835		
KILLED	0	0	0	0	15	34	22	60	1	10	64	1	0	4	0	211		
CMIA	0	0	0	0	0	0	0	167	0	0	0	0	0	0	0	167		
WIA	0	0	0	0	37	26	17	133	9	25	177	16	1	16	0	457		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

36th Gds RD

36th Gds RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	8966	9142	9111	8562	8477	8434	8436	8408	8384	8351	8328	8314	8314	8320	8316		
TOT CAS	45	0	47	62	85	47	36	28	24	33	23	14	0	6	4	454	
CBT CAS	36	0	47	62	17	39	36	28	24	33	23	14	0	6	4	369	
KILLED	11	0	20	18	5	12	11	8	7	10	4	3	0	2	1	112	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	25	0	27	44	12	27	25	20	17	23	19	11	0	4	3	257	
DNBI	9	0	0	0	68	8	0	0	0	0	0	0	0	0	0	85	
REPLACED	0	0	16	0	0	4	31	0	0	0	0	0	0	12	0	63	
RETURNS	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	

375th RD

375th RD	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	13643	13516	13028	12476	10928	10901	8967	8967	7758	7438	7328	7328	7328	7328	7328			
TOT CAS	0	127	488	552	16	27	0	0	1209	0	110	0	0	0	0	2529		
CBT CAS	0	126	487	551	16	27	0	0	1209	0	110	0	0	0	0	2526		
KILLED	0	24	130	118	5	7	0	0	452	0	19	0	0	0	0	755		
CMIA	0	20	58	64	0	0	0	0	94	0	35	0	0	0	0	271		
WIA	0	82	299	369	11	20	0	0	663	0	56	0	0	0	0	1500		
DNBI	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	49		

42d Gds RD

42d Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8845	8845	8845	8845	8845	8845	8837	8833	7954	7833	7829	7675	7521	7366	7231		
TOT CAS	0	0	0	0	0	0	8	4	879	121	4	154	154	155	135	1614	
CBT CAS	0	0	0	0	0	0	8	4	879	121	4	146	146	147	126	1581	
KILLED	0	0	0	0	0	0	1	0	114	60	0	24	24	24	56	303	
CMIA	0	0	0	0	0	0	0	0	33	0	0	0	0	0	3	36	
WIA	0	0	0	0	0	0	7	4	732	61	4	122	122	123	67	1242	
DNBI	0	0	0	0	0	0	0	0	0	0	0	8	8	8	9	33	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

51st Gds RD

51st Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8405	7705	7005	6305	7934	8487	8041	7749	5681	5681	5681	5980	5973	5973	5973		
TOT CAS	0	700	700	700	149	162	446	292	0	0	0	0	7	0	0	3156	
CBT CAS	0	665	665	665	147	152	430	276	0	0	0	0	7	0	0	3007	
KILLED	0	95	95	95	30	23	79	31	0	0	0	0	1	0	0	449	
CMIA	0	305	305	305	55	38	199	123	0	0	0	0	0	0	0	1330	
WIA	0	265	265	265	62	91	152	122	0	0	0	0	6	0	0	1228	
DNBI	0	35	35	35	2	10	16	16	0	0	0	0	0	0	0	149	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	299	0	0	0	299	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

52d Gds RD

52d Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	11414	10259	9814	8686	7631	5993	5950	5046	5004	5004	5004	5004	5004	5004	5004		
TOT CAS	0	1155	1000	996	996	946	43	43	42	0	0	0	0	0	0	5221	
CBT CAS	0	1138	977	975	975	925	42	42	41	0	0	0	0	0	0	5115	
KILLED	0	245	186	184	184	171	7	7	7	0	0	0	0	0	0	991	
CMIA	0	405	290	290	290	274	13	13	13	0	0	0	0	0	0	1588	
WIA	0	488	501	501	501	480	22	22	21	0	0	0	0	0	0	2536	
DNBI	0	17	23	21	21	21	1	1	1	0	0	0	0	0	0	106	
REPLACED	0	0	0	0	-59	0	0	0	0	0	0	0	0	0	0	-59	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

66th Gds RD

66th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	7781	7626	7864	8102	8340	8578	8744	8293	8522	7271	6591	6591	6490	6490	6490		
TOT CAS	0	0	0	0	0	0	71	451	486	571	680	0	101	0	0	2360	
CBT CAS	0	0	0	0	0	0	71	451	486	571	680	0	101	0	0	2360	
KILLED	0	0	0	0	0	0	13	82	92	76	155	0	14	0	0	432	
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WIA	0	0	0	0	0	0	58	369	394	495	525	0	87	0	0	1928	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	-155	238	238	238	238	237	0	0	0	0	0	0	0	0	1034	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

67th Gds RD

67th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	10540	8596	6888	6349	5564	5167	5688	5422	4749	4749	4749	5418	5386	5386	5386		
TOT CAS	8	1944	1708	39	785	397	152	54	0	0	0	4	32	0	0	5123	
CBT CAS	1	1936	1700	32	778	391	146	48	0	0	0	4	32	0	0	5068	
KILLED	0	246	216	6	71	19	14	5	0	0	0	1	6	0	0	584	
CMIA	0	1356	1301	4	567	284	106	35	0	0	0	1	1	0	0	3655	
WIA	1	334	183	22	140	88	26	8	0	0	0	2	25	0	0	829	
DNBI	7	8	8	7	7	6	6	6	0	0	0	0	0	0	0	55	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

71st Gds RD

71st Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	10947	10601	9260	9222	9187	9066	6945	6829	6517	6144	6119	6177	6197	6177	6157		
TOT CAS	13	1273	1350	38	35	121	125	116	312	373	25	23	18	20	20	3862	
CBT CAS	13	1260	1339	28	25	111	115	112	308	368	21	20	18	20	20	3778	
KILLED	1	366	407	8	6	32	17	17	73	19	5	5	5	5	5	971	
CMIA	11	379	305	4	3	24	24	21	69	55	3	3	1	3	3	908	
WIA	1	515	627	16	16	55	74	74	166	294	13	12	12	12	12	1899	
DNBI	0	13	11	10	10	10	10	4	4	5	4	3	0	0	0	84	
REPLACED	0	0	0	0	0	0	58	0	0	0	0	81	38	0	0	177	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

72d Gds RD

72d Gds RD	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	9008	8190	7373	6557	6535	6513	6483	6420	5795	5163	5143	5120	5089	5066	5066			
TOT CAS	0	818	817	816	22	22	30	63	625	632	20	23	31	23	0	3942		
CBT CAS	0	818	817	816	22	22	30	63	625	632	20	23	31	23	0	3942		
KILLED	0	78	77	77	4	4	3	7	85	42	2	3	3	6	0	391		
CMIA	0	461	461	461	1	1	17	35	113	184	12	13	6	3	0	1768		
WIA	0	279	279	278	17	17	10	21	427	406	6	7	22	14	0	1783		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

73d Gds RD

73d Gds RD	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	8452	11594	10768	9281	9080	9660	8305	8234	7271	6884	6836	6834	5818	5811	5588	
TOT CAS	0	6	374	579	201	95	181	71	1624	387	48	2	6	7	223	3804
CBT CAS	0	6	374	579	201	95	181	71	1624	387	48	2	6	7	223	3804
KILLED	0	1	68	125	34	16	37	18	339	43	8	1	0	6	53	749
CMIA	0	0	125	219	82	41	68	27	695	163	16	0	0	0	7	1443
WIA	0	5	181	235	85	38	76	26	590	181	24	1	6	1	163	1612
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	101	0	0	101

78th Gds RD

78th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8696	6975	6240	6086	7156	5544	5274	5267	5182	5181	5171	5168	5159	5152	5152		
TOT CAS	8	1721	454	154	288	271	270	7	85	1	10	3	9	7	0	3288	
CBT CAS	8	1721	454	154	288	271	270	7	85	1	10	3	9	7	0	3288	
KILLED	0	377	103	29	66	65	64	0	21	0	1	1	3	1	0	731	
CMIA	0	61	19	11	1	1	1	0	0	0	0	0	0	0	0	94	
WIA	8	1283	332	114	221	205	205	7	64	1	9	2	6	6	0	2463	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

81st Gds RD

81st Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	10550	11378	10809	10289	9740	9011	8474	6440	6420	6400	6270	6250	6230	6210	6190		
TOT CAS	26	92	617	732	549	537	537	766	20	20	130	20	20	20	20	4106	
CBT CAS	26	92	615	730	547	536	536	765	20	20	130	20	20	20	20	4097	
KILLED	9	44	180	197	149	145	145	203	5	5	35	5	5	5	5	1137	
CMIA	0	1	203	264	204	202	202	277	7	7	48	7	7	7	7	1443	
WIA	17	47	232	269	194	189	189	285	8	8	47	8	8	8	8	1517	
DNBI	0	0	2	2	2	1	1	1	0	0	0	0	0	0	0	9	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

89th Gds RD

89th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8154	8189	8189	8162	7795	7345	7287	7005	6724	6386	6227	5677	5396	5396	5396		
TOT CAS	0	0	0	27	367	450	58	282	281	338	159	550	281	0	0	2793	
CBT CAS	0	0	0	27	367	450	58	282	281	338	159	550	281	0	0	2793	
KILLED	0	0	0	6	68	75	16	15	15	51	35	126	15	0	0	422	
CMIA	0	0	0	11	138	170	21	106	106	128	64	212	106	0	0	1062	
WIA	0	0	0	10	161	205	21	161	160	159	60	212	160	0	0	1309	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	35	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

90th Gds RD

90th Gds RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	8001	7563	7123	6634	6909	5753	3189	3151	3114	3114	3114	3069	3025	2981	2938		
TOT CAS	0	438	440	489	440	441	2564	38	37	0	0	45	44	44	43	5063	
CBT CAS	0	438	439	488	439	440	2562	38	37	0	0	45	44	44	43	5057	
KILLED	0	82	82	63	82	83	448	8	8	0	0	10	9	9	9	893	
CMIA	0	235	236	236	236	236	1346	0	0	0	0	0	0	0	0	2525	
WIA	0	121	121	189	121	121	768	30	29	0	0	35	35	35	34	1639	
DNBI	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	6	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

92d Gds RD

92d Gds RD	DAY																		TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
OH	9558	9574	9489	8961	8430	6840	5249	6092	5898	6405	5191	5003	4122	3936	3914				
TOT CAS	0	0	85	528	531	1590	1591	230	194	188	188	188	186	186	22		5707		
CBT CAS	0	0	85	528	531	1590	1591	230	194	188	188	188	186	186	22		5707		
KILLED	0	0	16	100	101	302	302	48	38	36	36	36	35	35	4		1089		
CMIA	0	0	33	206	207	620	621	76	73	73	73	73	73	73	9		2210		
WIA	0	0	36	222	223	668	668	106	83	79	79	79	78	78	9		2408		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
REPLACED	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0		16		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		

93d Gds RD

93d Gds RD	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	9375	9426	9329	9095	8860	8742	8615	7948	7815	6886	6546	5878	5208	5188	5168	
TOT CAS	0	0	97	234	235	118	127	667	133	929	340	668	670	20	20	4258
CBT CAS	0	0	97	234	235	118	127	667	133	929	340	668	670	20	20	4258
KILLED	0	0	20	49	49	13	21	170	27	130	66	170	171	4	4	894
CMIA	0	0	10	24	24	9	13	71	13	81	34	71	72	2	2	426
WIA	0	0	67	161	162	96	93	426	93	718	240	427	427	14	14	2938
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	51
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

94th Gds RD

94th Gds RD	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	9385	9385	9385	9067	9209	8877	8554	8144	7248	7078	6928	6777	6626	6606	6586		
TOT CAS	0	0	0	318	345	332	323	410	486	170	150	151	151	20	20	2876	
CBT CAS	0	0	0	318	345	332	323	410	486	170	150	151	151	20	20	2876	
KILLED	0	0	0	60	70	65	62	180	159	31	28	29	29	4	4	721	
CMIA	0	0	0	76	76	77	77	59	64	41	36	36	36	5	5	588	
WIA	0	0	0	182	199	190	184	171	263	98	86	86	86	11	11	1567	
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

95th Gds RD

	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	7850	7850	7850	7850	8845	8845	8845	8732	8617	7155	5793	5793	5793	5793	5632			
TOT CAS	0	0	0	0	0	0	0	113	115	1462	1462	0	0	0	161			3313
CBT CAS	0	0	0	0	0	0	0	113	115	1462	1462	0	0	0	161			3313
KILLED	0	0	0	0	0	0	0	34	62	429	429	0	0	0	20			974
CMIA	0	0	0	0	0	0	0	0	0	257	257	0	0	0	0			514
WIA	0	0	0	0	0	0	0	79	53	776	776	0	0	0	141			1825
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
REPLACED	0	0	0	0	995	0	0	0	0	0	100	0	0	0	0			1095
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0

97th Gds RD

	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	7499	7865	7923	8161	8399	8637	8874	8696	8518	8339	7892	8382	8187	7514	7367			
TOT CAS	0	0	0	0	0	0	0	178	178	179	447	183	195	0	147			1507
CBT CAS	0	0	0	0	0	0	0	178	178	179	447	183	195	0	147			1507
KILLED	0	0	0	0	0	0	0	30	30	31	61	29	42	0	21			244
CMIA	0	0	0	0	0	0	0	16	16	16	41	17	0	0	0			106
WIA	0	0	0	0	0	0	0	132	132	132	345	137	153	0	126			1157
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
REPLACED	0	366	58	238	238	238	237	0	0	0	0	0	0	0	0			1375
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0

10th TC

	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	8601	8601	8601	8601	8601	7240	7100	6962	6855	6749	6643	6457	6271	6086	5901			
TOT CAS	0	0	0	0	0	1361	140	138	107	106	106	186	186	185	185			2700
CBT CAS	0	0	0	0	0	1361	140	138	107	106	106	186	186	185	185			2700
KILLED	0	0	0	0	0	440	38	37	59	58	58	13	13	13	13			742
CMIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
WIA	0	0	0	0	0	921	102	101	48	48	48	173	173	172	172			1958
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0

18th TC

18th TC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	8338	8338	8338	8338	8338	8338	8334	8973	8634	8355	8077	8077	8054	8049	7253			
TOT CAS	0	0	0	0	0	0	4	57	339	279	278	0	23	5	100	1085		
CBT CAS	0	0	0	0	0	0	4	57	328	270	269	0	23	5	100	1056		
KILLED	0	0	0	0	0	0	4	23	111	34	34	0	3	2	44	255		
CMIA	0	0	0	0	0	0	0	0	62	51	50	0	0	0	0	163		
WIA	0	0	0	0	0	0	0	34	155	185	185	0	20	3	56	638		
DNBI	0	0	0	0	0	0	0	0	11	9	9	0	0	0	0	29		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

29th TC

29th TC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	10977	10977	10977	10973	10973	10973	11669	11669	10175	10048	10042	10013	9988	9988	9880			
TOT CAS	0	0	0	4	0	0	0	0	1711	127	6	29	25	0	108	2010		
CBT CAS	0	0	0	4	0	0	0	0	1711	127	6	29	25	0	108	2010		
KILLED	0	0	0	1	0	0	0	0	511	40	1	9	6	0	18	586		
CMIA	0	0	0	0	0	0	0	0	282	0	0	0	0	0	0	282		
WIA	0	0	0	3	0	0	0	0	918	87	5	20	19	0	90	1142		
DNBI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

2d Gds TC

2d Gds TC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	11947	11947	11744	11782	11249	11217	11105	11710	10767	10551	9470	9446	9431	9416	8965			
TOT CAS	0	0	203	198	533	32	112	60	943	27	665	24	15	15	501	3328		
CBT CAS	0	0	200	198	533	32	112	60	940	27	665	24	15	15	500	3321		
KILLED	0	0	46	57	173	18	23	10	271	7	245	4	4	2	147	1007		
CMIA	0	0	86	18	41	2	9	15	143	0	25	0	0	0	61	400		
WIA	0	0	68	123	319	12	80	35	526	20	395	20	11	13	292	1914		
DNBI	0	0	3	0	0	0	0	0	3	0	0	0	0	0	1	7		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

2d TC

2d TC	DAY																TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
OH	8338	8338	8338	8338	8338	7784	6997	6747	6496	6389	6389	6371	6341	6234	6180		
TOT CAS	0	0	0	0	0	554	787	250	251	107	0	18	30	107	54	2158	
CBT CAS	0	0	0	0	0	552	785	249	250	106	0	18	30	106	54	2150	
KILLED	0	0	0	0	0	162	230	73	73	31	0	5	9	31	16	630	
CMIA	0	0	0	0	0	67	95	30	30	13	0	2	0	13	6	256	
WIA	0	0	0	0	0	323	460	146	147	62	0	11	21	62	32	1264	
DNBI	0	0	0	0	0	2	2	1	1	1	0	0	0	1	0	8	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

31st TC

31st TC	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	6730	6380	6380	7746	7277	7185	7098	6463	6417	6370	6132	6123	5422	5422	5422	
TOT CAS	0	0	0	41	469	53	87	48	46	47	238	9	0	0	0	1038
CBT CAS	0	0	0	36	468	52	86	47	46	47	238	9	0	0	0	1029
KILLED	0	0	0	10	83	25	43	24	8	24	49	3	0	0	0	269
CMIA	0	0	0	9	134	15	14	14	14	14	71	1	0	0	0	286
WIA	0	0	0	17	251	12	29	9	24	9	118	5	0	0	0	474
DNBI	0	0	0	5	1	1	1	1	0	0	0	0	0	0	0	9
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5th Gds TC

5th Gds TC	DAY															TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OH	10026	10026	10013	8984	8479	8380	8303	8205	8128	9185	9173	9173	8058	8058	8058	
TOT CAS	0	0	13	1029	505	99	77	98	77	66	12	0	0	0	0	1976
CBT CAS	0	0	13	1027	504	99	77	98	77	66	12	0	0	0	0	1973
KILLED	0	0	10	244	120	23	18	23	18	17	3	0	0	0	0	476
CMIA	0	0	0	432	212	43	32	42	32	23	0	0	0	0	0	816
WIA	0	0	3	351	172	33	27	33	27	26	9	0	0	0	0	681
DNBI	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6th TC	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	9077	9075	9719	9363	9539	9701	9983	8631	8901	9108	8378	8371	8335	8333	8331			
TOT CAS	0	2	52	356	315	313	410	228	228	82	223	7	36	2	2	2256		
CBT CAS	0	0	50	354	313	311	408	226	226	80	221	5	34	0	0	2228		
KILLED	0	0	0	96	55	77	105	88	88	20	44	2	11	0	0	586		
CMIA	0	0	21	118	112	102	137	62	62	28	76	0	5	0	0	723		
WIA	0	0	29	140	146	132	166	76	76	32	101	3	18	0	0	919		
DNBI	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	28		
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

UNATTACHED	DAY																	TOTAL
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
OH	10809	10614	9417	7136	7414	7575	5664	7480	8565	9565	10344	18702	16900	17964	18794			
KILLED	0	0	53	187	48	21	7	57	20	5	60	43	12	1	39	553		
TOT CAS	0	0	53	187	44	20	6	57	20	5	60	42	12	1	39	546		
CBT CAS	0	0	16	35	11	6	2	15	6	1	15	16	5	0	9	137		
CMIA	0	0	15	66	12	5	1	14	2	1	31	2	0	0	21	170		
WIA	0	0	22	86	21	9	3	28	12	3	14	24	7	1	9	239		
DNBI	0	0	0	0	4	1	1	0	0	0	0	1	0	0	0	7		
REPLACED	0	0	0	0	0	0	0	0	0	0	342	0	0	0	40	382		
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

OTHER NONDIV	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
OH	12494	12355	12279	12202	12120	12111	12095	12069	12029	11863	11801	11785	11783	11773	11769		
TOT CAS	2	139	76	77	82	9	16	26	40	166	62	16	2	10	4	727	
CBT CAS	2	138	76	77	82	9	16	25	40	166	62	16	2	10	4	725	
KILLED	0	29	17	16	17	3	7	4	7	46	13	3	0	4	1	167	
CMIA	0	57	21	21	4	1	0	6	9	11	18	5	0	0	0	153	
WIA	2	52	38	40	61	5	9	15	24	109	31	8	2	6	3	405	
DNBI	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
REPLACED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX H

DATA TABLES FOR WEAPON STATUS IN GERMAN UNITS

H-1. INTRODUCTION. This appendix contains data tables showing weapon statistics for individual German units in the KDB. Statistics reflect status as recorded in the KDB. Tables are shown only for the 24 primary combat units listed in Table 3-1. As noted in Chapter 2, weapon assets in small units attached to these primary units on a day are included in the primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Units that are not attached to any primary parent combat unit on a day have their assets combined into a dummy unit named UNATTACHED, which is listed as a regular unit in the tables. Daily status in the KDB is as of 1800 on the indicated day. The weapon status categories are:

- a. OH denotes onhand effective weapons.
- b. DST + ABND denotes total destroyed plus total abandoned weapons.
- c. DAMAGED denotes number of items damaged in action.
- d. IN REPAIR denotes items in repair. According to KDB documentation, this field is strictly optional and usually is not used in the KDB.
- e. REPLACED denotes number of items received as replacements.
- f. RETURNS primarily denotes number of items returning to operational status from repair.

H-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The order and nomenclature of units is the same as that used in Table 3-1. For each weapon status category in each tabulated unit, there is a column entry in each row (weapon type) for each calendar day from 4 (July) through 18 (July) in 1943. Row (weapon type) totals over the KDB scenario are given in the rightmost column for all weapon status categories except ONHAND. A weapon type is listed under a weapon status category only if at least 1 day has a nonzero table entry in that status category. If the KDB records no weapons in a weapon status category for a unit, the name ALL is listed in that category with all zero entries. The classification and nomenclature of weapon types is essentially that used in the KDB. Many of the abbreviations are defined in the glossary, but the user is referred to the KDB documentation for details on vehicle/weapon model numbers and characteristics.

H-3. GERMAN COMBAT UNIT WEAPON DATA**3d Pz Corps**

3d Pz Corps																	
	DAY																
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
105mm Gun	12	11	10	10	0	0	9	0	0	0	0	0	0	0	0		
150mm How	12	11	11	11	0	0	9	9	9	9	9	9	9	9	0		
150mm Lnch	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0		
20mm AA	96	96	30	30	0	0	0	0	0	0	0	0	0	0	0		
210mm How	9	8	8	8	0	0	8	8	7	7	7	7	7	7	7		
280mm Lnch	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0		
37mm AA	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0		
45/50mm AT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
50mm mtr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
75mm AT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
82mm mtr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
88mm AA	24	24	0	0	0	0	0	0	0	0	0	0	0	0	0		
AC8w	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
MHT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MMG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
PzVI	38	21	18	21	32	14	23	0	17	0	6	8	0	0	0		
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm Gun	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0		2
150mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		1
210mm How	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0		2
PzVI	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0		3
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm Gun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		1
PzVI	2	18	7	7	0	19	0	0	6	0	4	0	0	0	0		63
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
MMG	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2
PzVI	7	0	0	0	11	0	0	0	0	0	0	0	0	0	0		18
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
PzVI	0	1	5	11	11	1	9	0	0	0	0	2	0	0	0		40

48th Pz Corps

DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
105mm Gun	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0		
105mm How	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0		
150mm Gun	0	0	0	0	0	0	2	2	2	2	2	2	2	0	0		
150mm How	8	7	6	6	0	0	0	0	0	0	0	0	5	5	4		
210mm How	0	0	0	0	0	0	0	0	0	0	0	0	9	9	9		
LHT	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MHTspt	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PzV	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
PzV	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		1
150mm How	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1		3
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0

4th Panzer Army

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
MHT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

52d Corps

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
20mm AA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Corps Raus

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	0	0	0	0	0	0	0	12	12	0	0	0	0	0	0			
280mm Lnc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
StuG III	0	0	0	0	0	0	0	0	0	0	4	5	5	5	22			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		

II SS Pz Corps

	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ON HAND	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0			
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
150mm Gun	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
20mm AA	18	18	18	0	0	0	0	0	0	0	0	0	0	0	0			
210mm Luch	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
AC8w	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0			
LHT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
MHT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Provisional Army Kempf

	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ON HAND																		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

106th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	45	43	43	42	42	42	42	30	29	39	38	38	38	38	38			
150mm Gun	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
150mm How	12	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
150mm Lnch	18	18	18	18	18	18	18	0	0	0	0	0	0	0	0			
20mm AA	104	104	104	104	104	104	74	75	75	99	99	99	99	35	11			
28/20mm AT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
280mm Lnch	18	18	18	18	18	18	18	18	18	18	18	18	18	18	0			
37mm AA	0	0	0	0	0	0	0	0	0	9	9	9	9	9	0			
45/50mm AT	30	29	29	29	27	27	27	27	27	27	26	25	24	24	24			
50mm mtr	90	83	81	79	78	77	76	76	75	74	73	73	73	73	73			
75mm AT	33	33	33	32	29	28	28	29	25	27	27	27	27	27	27			
75mm lt IG	19	19	19	18	17	17	17	17	17	17	16	16	16	16	16			
81mm mtr	63	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
88mm AA	36	36	36	36	36	36	24	24	24	24	24	24	24	0	0			
Flamethr	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18			
MMG	110	102	100	97	96	95	94	93	92	90	89	88	88	88	88			
StuG III	23	20	17	15	12	14	28	29	24	23	18	18	18	20	19			
StuH	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	2	0	1	0	0	0	0	1	1	1	0	0	0	0	6		
150mm How	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
20mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
45/50mm AT	0	1	0	0	2	0	0	0	0	0	1	1	1	0	0	6		
50mm mtr	0	7	2	2	1	1	1	0	1	1	1	0	0	0	0	17		
75mm AT	0	0	0	1	3	1	0	0	4	1	0	0	0	0	0	10		
75mm lt IG	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	3		
81mm mtr	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
MMG	0	8	2	3	1	1	1	1	1	2	1	1	0	0	0	22		
StuG III	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	0	3	3	2	3	3	0	0	4	0	0	0	0	0	1	19		
StuH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	0	0	0	0	0	9	2	0	0	0	0	0	0	0	0	11		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
75mm AT	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	0	0	0	0	0	5	6	1	0	1	0	0	0	2	0	15		

167th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	35	35	35	35	35	35	35	33	33	31	31	31	31	31	32			
150mm Gun	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
150mm How	11	11	11	11	11	11	11	9	9	9	9	9	9	9	9			
150mm Lnc	18	18	18	18	18	40	18	18	18	0	0	0	0	36	36			
20mm AA	11	11	10	10	10	10	10	11	9	9	9	9	9	36	66			
45/50mm AT	21	21	21	21	20	20	20	20	20	20	20	20	20	20	20			
50mm mtr	90	90	90	90	90	90	90	90	89	89	89	89	89	89	89			
75mm AT	33	30	30	30	30	30	30	31	31	30	30	30	30	30	31			
75mm lt IG	20	19	19	19	19	19	19	18	18	18	18	18	18	18	18			
81mm mtr	60	60	60	60	60	58	58	58	58	58	58	58	58	58	58			
88mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	9	17			
Flamethr	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
MMG	112	112	112	112	112	112	112	111	111	110	110	110	110	110	110			
StuG III	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3		
150mm How	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2		
20mm AA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
45/50mm AT	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
50mm mtr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
75mm AT	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	4		
75mm lt IG	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2		
81mm mtr	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2		
MMG	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
20mm AA	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
StuG III	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
75mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
StuG III	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		

168th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23		
150mm Gun	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
150mm Lnc	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
155mm How	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11		
20mm AA	12	12	12	12	12	12	12	12	12	41	12	12	12	12	12	12		
45/50mm AT	22	22	21	21	21	21	21	20	20	20	19	19	19	19	19	21		
50mm mtr	90	90	87	87	87	87	87	87	87	87	87	87	87	87	87	87		
75mm AT	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	32		
75mm lt IG	22	21	21	21	21	21	21	21	21	21	20	20	20	20	19			
81mm mtr	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66		
88mm AA	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0		
MMG	126	125	125	125	125	125	125	125	125	125	124	124	122	122	122			

DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
155mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
20mm AA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
45/50mm AT	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	
50mm mtr	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	
75mm lt IG	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	3	
MMG	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	4	

DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
45/50mm AT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
75mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	

IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
45/50mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	

RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
45/50mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	

198th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	0	0	0	0	38	38	38	38	38	50	50	50	50	50	50			
150mm Gun	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6			
150mm How	0	0	0	0	12	12	12	12	12	12	12	12	12	12	12			
20mm AA	0	0	0	0	12	12	12	12	12	12	12	12	12	12	45			
37mm AT	0	0	0	0	22	22	22	22	22	22	22	22	21	21	21			
45/50mm AT	0	0	0	0	27	27	27	27	27	27	27	27	27	27	27			
50mm mtr	0	0	0	0	83	83	83	83	83	83	83	79	78	78	77			
75mm AT	0	0	0	0	27	27	27	27	27	27	27	27	27	27	27			
75mm lt IG	0	0	0	0	16	16	16	16	16	16	16	16	16	16	16			
81mm mtr	0	0	0	0	65	65	65	65	65	65	65	65	65	65	65			
88mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12			
Flamethr	0	0	0	0	54	54	54	54	54	54	54	54	54	54	54			
MMG	0	0	0	0	98	98	98	98	98	98	98	88	85	85	85			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
37mm AT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
50mm mtr	0	0	0	0	0	0	0	0	0	0	0	4	1	0	1	6		
MMG	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	13		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

255th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4		
105mm How	26	26	26	26	26	26	26	27	27	27	27	27	27	38	38			
150mm Gun	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3			
150mm How	7	11	11	11	11	11	11	11	11	11	11	12	12	12	12			
150mm Lnch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33			
152mm How	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
210mm Lnch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15			
280mm Lnch	0	0	0	0	0	0	0	0	0	18	18	0	0	0	0			
37mm AT	21	21	21	21	21	21	20	20	20	20	19	19	19	19	19			
45/50mm AT	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9			
50mm mtr	63	63	63	63	62	61	57	57	57	64	64	64	64	64	64			
75mm AT	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26			
75mm lt IG	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16			
81mm mtr	42	42	42	42	42	42	42	42	42	43	43	43	43	43	43			
ATR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Flamethr	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
MMG	78	78	78	78	78	77	77	77	77	77	77	77	77	77	77			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
210mm Lnch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		3	
37mm AT	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0		2	
50mm mtr	0	0	0	0	1	1	4	0	0	0	0	0	0	0	0		6	
MMG	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		1	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm Gun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		1	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	
150mm How	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0		2	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm How	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		1	
45/50mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		1	
50mm mtr	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0		7	
81mm mtr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0		1	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		1	

320th ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	48	46	46	46	46	46	46	44	43	32	32	32	32	32	32			
150mm Gun	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
150mm How	7	6	6	6	6	6	6	4	4	4	4	4	4	4	6			
150mm Lnc	18	18	18	18	18	18	18	0	0	0	0	0	0	0	0			
155mm How	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
20mm AA	90	90	90	90	102	102	102	102	102	72	72	72	72	42	43			
28/20mm AT	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
280mm Lnc	18	18	18	18	18	18	18	0	0	0	0	0	0	0	0			
37mm AA	0	0	0	0	18	18	18	18	18	18	18	18	18	18	18			
45/50mm AT	23	21	21	21	21	19	19	20	20	20	20	19	18	22	22			
50mm mtr	86	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
75mm AT	25	25	24	24	23	22	22	22	22	22	22	21	21	21	21			
75mm lt IG	15	15	14	14	14	14	14	16	16	16	16	16	16	16	16			
81mm mtr	76	54	54	54	54	40	40	40	40	40	38	38	38	38	38			
88mm AA	36	36	36	36	36	36	36	36	36	24	24	24	24	12	12			
Flamethr	6	6	6	3	3	3	3	3	3	3	3	3	3	3	3			
MMG	120	98	98	98	95	95	95	95	95	95	95	95	95	95	95			
StuG III	10	9	9	9	8	8	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	2	0	0	0	0	0	3	1	0	0	0	0	1	0	7		
150mm How	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	3		
28/20mm AT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
45/50mm AT	0	2	0	0	0	2	0	0	0	0	0	1	0	0	0	5		
50mm mtr	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30		
75mm AT	0	0	1	0	1	1	0	1	0	0	0	1	0	1	0	6		
75mm lt IG	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
81mm mtr	0	22	0	0	0	14	0	0	0	0	2	0	0	0	0	38		
Flamethr	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3		
MMG	0	22	0	0	3	0	0	0	0	0	0	0	0	0	0	25		
StuG III	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45/50mm AT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
StuG III	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
StuG III	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	5		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2		
150mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2		
20mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
45/50mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0	5		
75mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2		
75mm lt IG	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

332d ID

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0			
105mm How	36	35	46	46	46	46	46	47	47	47	47	47	47	36	46			
150mm Gun	8	8	8	8	8	8	6	6	6	6	6	6	6	6	6			
150mm How	12	11	11	11	11	11	11	12	12	12	12	12	12	12	12			
20mm AA	12	12	12	12	12	11	11	11	11	8	8	8	8	8	3			
210mm How	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0			
210mm Lnc	18	18	18	18	18	18	18	18	18	18	18	0	0	0	0			
280mm Lnc	18	18	18	18	18	18	18	18	18	0	0	0	0	0	0			
45/50mm AT	30	29	29	29	29	29	29	30	30	30	30	30	30	30	30			
50mm mtr	89	89	89	89	89	89	89	89	89	91	91	91	91	91	91			
75mm AT	40	40	40	40	40	40	40	40	40	40	40	40	40	40	38			
75mm lt IG	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
81mm mtr	64	64	64	64	63	61	61	61	59	61	61	61	61	61	61			
Flamethr	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
MMG	120	120	120	120	120	118	118	118	116	116	116	116	116	116	116			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2		
20mm AA	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	4		
75mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
81mm mtr	0	0	0	0	1	2	0	0	2	0	0	0	0	0	0	5		
MMG	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm Gun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
105mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
150mm Gun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
150mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
20mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5		
45/50mm AT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
50mm mtr	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2		
81mm mtr	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
150mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
45/50mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		

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	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ON HAND																		
105mm How	23	23	23	23	23	23	23	24	24	24	24	24	24	24	24			
155mm How	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8			
45/50mm AT	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14			
50mm mtr	66	66	66	66	66	66	66	66	66	71	71	71	71	71	71			
75mm AT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28			
75mm lt IG	11	11	11	11	11	11	11	11	11	11	12	12	12	12	12			
81mm mtr	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69			
87.6mm How	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
MMG	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
81mm mtr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
155mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mm mtr	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5		
75mm lt IG	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		

11th PzD (PART 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
105mm How	21	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
150mm Gun	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
150mm How	9	6	6	6	6	8	8	8	8	8	8	8	8	8	8			
150mm Lnc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33			
20mm AA	88	82	82	73	70	80	83	83	78	69	68	68	78	78	75			
210mm Lnc	0	0	0	0	0	0	0	0	0	0	0	18	18	18	0			
280mm Lnc	1	1	1	1	1	1	1	1	1	1	1	19	18	18	19			
37mm AT	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7			
45/50mm AT	21	20	20	20	20	18	18	18	18	18	16	16	14	14	14			
75mm AT	5	5	5	5	5	4	4	4	4	3	3	4	4	4	4			
75mm lt IG	17	17	17	17	17	16	16	15	15	15	15	15	15	15	14			
81mm mtr	37	37	37	36	36	36	36	36	36	35	33	33	33	33	36			
88mm AA	8	8	8	8	8	6	6	6	6	6	5	5	5	5	5			
AC4-6w	36	36	36	36	36	36	32	32	32	32	32	32	32	32	31			
AC8w	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4			
Flamethr	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
Hummel	6	5	5	5	5	6	6	6	6	5	6	6	6	6	6			
LHT	34	33	33	31	31	32	29	29	30	30	31	31	31	31	30			
LHT37mmAT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
LHT81mmtr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
MarderII	7	7	7	6	6	6	6	5	7	3	3	5	5	5	4			
MarderIII	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
MHT	26	25	25	25	25	25	28	25	25	25	26	26	27	27	29			
MHT37mmAT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
MHT75mmIG	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1			
MHT81mmtr	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2			
MHTspt	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MMG	72	72	72	69	68	68	68	47	47	47	47	46	46	46	41			
Pz II	7	6	5	5	5	5	7	2	7	7	6	5	5	6	6			
PzIII	54	48	50	27	25	28	25	31	25	24	28	23	31	36	34			
PzIIIsp	11	10	10	10	6	6	8	7	8	8	6	6	6	6	7			
PzIV	23	21	19	13	12	13	8	14	12	14	13	14	13	14	14			
StuG III	22	20	20	7	7	16	16	11	10	10	12	13	14	15	15			
StuH	8	7	7	4	4	7	7	6	2	4	5	6	7	7	8			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
20mm AA	0	4	0	1	0	0	0	0	3	0	1	0	1	0	1	11		
280mm Lnc	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
45/50mm AT	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		
75mm lt IG	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
81mm mtr	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	4		
88mm AA	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2		
LHT	0	0	0	2	0	1	1	0	0	0	0	0	0	0	0	4		
MarderII	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3		
MHT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
MMG	0	0	0	3	1	0	0	0	0	0	0	1	0	0	0	5		
Pz II	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
PzIII	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2		
PzIIIsp	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
PzIV	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	3		
StuG III	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3		

11th PzD (PART 2 of 2)

	DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
150mm How	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
20mm AA	0	2	0	8	3	0	0	0	2	9	0	0	0	0	2	26		
37mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
45/50mm AT	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	5		
75mm AT	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2		
75mm lt IG	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2		
88mm AA	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2		
AC4-6w	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	5		
AC8w	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
Hummel	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2		
LHT	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	4		
MarderII	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	4		
MHT	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3		
MHT75mmIG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
MHT81mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
MMG	0	0	0	0	0	0	0	21	0	0	0	0	0	0	5	26		
Pz II	0	1	1	0	0	0	0	5	0	0	1	1	0	0	0	9		
PzIII	0	6	1	23	0	0	3	4	9	1	0	5	0	0	2	54		
PzIIIsp	0	1	0	0	3	0	0	1	1	0	2	0	0	0	0	8		
PzIV	0	2	2	5	1	0	4	0	3	0	1	0	1	0	0	19		
StuG III	0	2	0	11	0	0	0	5	1	0	0	0	0	0	0	19		
StuH	0	1	0	3	0	0	0	1	4	0	0	0	0	0	0	9		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45/50mm AT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
81mm mtr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
AC4-6w	2	0	0	0	0	0	5	0	0	0	0	0	0	0	0	7		
LHT	1	0	0	0	0	0	3	0	0	0	0	0	0	0	2	6		
MarderII	4	0	0	0	0	0	5	0	0	0	0	0	0	0	0	9		
MHT	6	0	0	0	0	0	3	0	0	0	0	0	0	0	2	11		
MHT75mmIG	1	0	0	0	0	0	2	0	0	0	0	0	0	0	1	4		
MHT81mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
Pz II	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2		
PzIII	12	0	0	0	0	0	40	0	0	0	0	0	0	0	0	52		
PzIIIsp	6	0	0	0	0	0	9	0	0	0	0	0	0	0	0	15		
PzIV	3	0	0	0	0	0	16	0	0	0	0	0	0	0	0	19		
StuG III	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5		
StuH	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	4		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm How	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2		
20mm AA	0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	20		
75mm AT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
81mm mtr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
88mm AA	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
Hummel	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2		
LHT	0	0	0	0	0	2	0	0	1	0	1	0	0	0	0	4		
MarderII	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	4		
MHT	0	0	0	0	0	0	3	0	0	0	1	0	1	0	2	7		
MHT75mmIG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
Pz II	0	0	0	0	0	0	3	0	5	0	0	0	0	1	0	9		
PzIII	0	0	3	0	0	3	0	10	3	0	4	0	8	5	0	36		
PzIIIsp	0	0	0	0	0	0	2	0	2	0	0	0	0	0	1	5		
PzIV	0	0	0	0	0	1	0	6	2	2	0	1	0	1	2	15		
StuG III	0	0	0	0	0	10	0	0	0	0	2	1	1	1	0	15		
StuH	0	0	0	0	0	3	0	0	0	2	1	1	1	0	1	9		

19th PzD (PART 1 of 2)

DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
105mm How	20	20	20	20	20	20	20	20	20	20	20	20	19	19	20		
150mm Gun	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
150mm How	8	8	8	8	17	8	8	8	7	7	7	7	7	7	7		
150mm Lnch	36	36	36	36	36	36	0	0	36	36	36	36	36	36	36		
20mm AA	21	20	50	50	49	49	49	49	48	46	46	46	46	46	47		
28/20mm AT	10	10	10	10	10	10	10	9	9	8	8	8	7	7	7		
280mm Lnch	0	0	0	0	0	0	0	0	18	18	18	18	18	18	18		
37mm AT	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11		
45/50mm AT	20	20	20	20	20	20	20	20	17	17	17	16	16	16	13		
50mm mtr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
75mm AT	3	3	3	3	3	5	5	5	5	5	4	4	4	4	4		
75mm lt IG	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9		
81mm mtr	31	31	31	31	31	31	31	30	30	29	29	29	29	29	29		
88mm AA	8	8	17	17	20	20	20	20	20	20	20	20	20	20	20		
AC4-6w	23	21	21	20	20	20	20	20	20	20	20	20	20	20	20		
AC8w	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
LHT	8	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
MarderIII	12	11	10	9	8	7	7	7	7	4	4	5	5	5	5		
MHT	17	16	16	15	14	13	13	13	13	13	13	13	13	13	13		
MHT37mmAT	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MHT75mmIG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
MMG	66	66	66	66	66	66	66	64	64	62	62	62	62	62	62		
Pz I	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
Pz II	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
PzIII	38	36	24	12	12	8	14	12	17	16	16	18	14	14	18		
PzIIIsp	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
PzIV	38	35	24	26	24	5	2	3	8	12	12	7	6	6	10		
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
150mm How	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
28/20mm AT	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	3	
45/50mm AT	0	0	0	0	0	0	0	0	3	0	0	1	0	0	3	7	
75mm AT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
75mm lt IG	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
81mm mtr	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	
AC4-6w	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
MarderIII	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
MHT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
MMG	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	
PzIII	0	0	0	2	0	4	0	0	1	1	0	0	0	0	0	8	
PzIV	0	1	0	0	1	9	1	1	0	1	0	0	0	0	0	14	

19th PzD (PART 2 of 2)

DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
150mm How	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
20mm AA	0	1	0	0	1	0	0	1	0	2	0	0	0	0	0	5	
AC4-6w	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
LHT	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
MarderIII	0	1	1	1	1	1	0	0	0	3	0	0	0	0	0	8	
MHT	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	
MHT37mmAT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PzIII	0	2	12	10	0	6	0	9	0	1	0	0	4	0	0	44	
PzIV	0	2	11	0	1	11	2	3	0	1	0	5	1	0	0	37	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
MarderIII	2	0	0	0	0	0	7	0	0	0	0	0	0	0	0	9	
PzIII	6	0	0	0	0	0	24	0	0	0	0	0	0	0	0	30	
PzIV	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	24	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
75mm AT	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
20mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
MarderIII	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	
PzIII	0	0	0	0	0	6	6	7	6	1	0	2	0	0	4	32	
PzIV	0	0	0	2	0	1	0	5	5	6	0	0	0	0	4	23	

3d PzD (PART 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
105mm How	24	24	23	22	21	20	20	20	20	20	20	20	20	22	22			
150mm Gun	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
150mm How	8	8	8	8	11	11	11	11	11	10	10	10	5	5	5			
20mm AA	46	46	46	46	38	38	38	46	46	44	44	44	44	44	44			
210mm Luch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
28/20mm AT	9	9	9	9	9	9	9	9	9	9	9	8	8	8	8			
280mm Luch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
45/50mm AT	26	26	26	26	26	26	26	26	26	23	22	22	22	22	22			
75mm AT	10	10	10	10	10	10	11	9	9	7	7	6	4	4	4			
75mm lt IG	20	20	20	20	20	20	20	20	20	20	20	20	20	20	19			
81mm mtr	34	34	34	34	34	33	32	32	32	32	32	32	32	32	31			
88mm AA	3	3	3	3	3	3	3	3	3	3	3	3	3	5	5			
AC4-6w	28	27	27	27	27	28	28	28	28	27	27	27	27	27	27			
AC8w	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3			
LHT	31	28	28	28	28	27	30	30	30	30	29	28	28	28	28			
LHT37mmAT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
LHT81mmtr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
MarderII	14	14	14	14	14	14	14	12	12	10	10	8	8	8	8			
MHT	25	23	23	23	22	20	20	20	20	20	20	20	20	20	20			
MHT37mmAT	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MHT75mmIG	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1			
MHT81mmtr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
MHTspt	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
MMG	61	61	61	61	61	61	61	61	61	60	60	59	59	59	55			
Pz II	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3			
PzIII	51	48	45	45	42	38	32	27	30	33	26	25	29	32	36			
PzIIIspt	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
PzIV	22	17	16	16	16	9	5	8	10	12	12	12	10	12	12			
StuG III	2	1	1	1	1	2	2	0	0	1	1	1	1	1	2			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4		
150mm How	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
20mm AA	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		
28/20mm AT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
280mm Luch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
45/50mm AT	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4		
75mm AT	0	0	0	0	0	0	0	2	0	1	0	0	1	2	0	6		
75mm lt IG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
81mm mtr	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	3		
LHT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
MarderII	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
MMG	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	6		
PzIII	0	0	2	1	1	0	0	0	0	1	0	1	1	0	0	7		
PzIV	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	4		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm How	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3		
20mm AA	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8		
75mm AT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
AC4-6w	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2		
AC8w	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2		
LHT	0	2	0	0	0	1	0	0	0	0	1	1	0	0	0	5		
MarderII	0	0	0	0	0	0	0	2	0	1	0	2	0	0	0	5		
MHT	0	3	0	0	1	2	0	0	0	0	0	0	0	0	0	6		
MHT37mmAT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
MHT75mmIG	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
Pz II	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
PzIII	0	3	3	4	2	4	7	5	0	3	7	1	0	0	0	39		
PzIV	0	5	2	1	0	8	4	0	0	0	0	2	0	0	0	22		
StuG III	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	3		

3d PzD (PART 2 of 2)

	DAY															
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
Pz II	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6
PzIII	9	0	0	0	0	0	29	0	0	0	0	0	0	0	0	38
PzIV	1	0	0	0	0	0	17	0	0	0	0	0	0	0	0	18
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
75mm AT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
88mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
PzIII	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
PzIV	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
20mm AA	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
AC4-6w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
LHT	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
MHT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PzIII	0	0	2	0	0	0	1	0	3	7	0	1	5	3	4	26
PzIV	0	1	1	0	0	2	0	4	2	2	0	1	0	2	0	15
StuG III	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	3

6th PzD (PART 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	12	12	12	4	4	4	4			
105mm How	24	24	24	23	23	23	23	23	23	23	23	23	23	23	23			
150mm Gun	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
150mm How	8	8	8	8	8	17	8	8	8	8	8	8	8	8	8			
150mm Lnh	18	18	18	18	18	18	18	18	36	36	36	36	36	18	18			
20mm AA	89	89	59	59	64	64	64	64	94	94	90	88	88	88	88			
210mm How	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0			
28/20mm AT	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
280mm Lnh	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
37mm AA	0	0	0	0	0	0	0	0	9	9	9	9	9	9	9			
37mm AT	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3			
45/50mm AT	20	20	19	18	17	16	15	14	13	13	13	12	11	11	11			
50mm mtr	15	15	15	15	15	15	15	15	15	15	15	14	14	14	14			
75mm AT	10	10	10	9	9	9	9	9	9	7	7	7	7	7	10			
75mm lt IG	15	15	15	15	15	15	15	14	14	14	14	14	11	11	11			
81mm mtr	33	33	33	32	31	30	29	29	29	29	29	28	28	28	28			
88mm AA	26	26	17	16	19	19	19	19	19	19	19	19	19	19	19			
AC4-6w	30	30	30	27	26	25	25	25	25	25	25	25	25	25	25			
AC8w	10	10	10	9	9	9	9	9	9	9	9	9	9	9	9			
AC8w 75mm	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4			
Flamethr	36	36	36	34	34	34	34	34	34	34	34	34	34	34	34			
Hummel	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
LHT	67	67	65	61	57	55	53	52	51	51	51	51	51	51	51			
LHT37mmAT	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3			
LHT81mmtr	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
LHTspt	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MarderII	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3			
MarderIII	7	7	7	7	7	7	7	7	7	7	7	5	5	5	5			
MHT	35	35	34	32	30	29	28	27	26	25	24	24	24	24	24			
MHT Flame	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MHT37mmAT	6	6	6	5	4	4	4	4	4	4	4	4	4	4	4			
MHT75mmIG	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0			
MHT81mmtr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
MHTspt	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1			
MMG	76	76	76	74	74	74	74	74	74	74	74	74	74	74	74			
Pz II	12	10	9	8	7	5	4	4	4	4	4	2	2	2	3			
PzIII	53	48	44	40	39	15	15	15	14	11	9	4	7	10	10			
PzIIIsp	13	12	11	10	10	0	0	0	0	0	0	0	0	0	0			
PzIV	27	22	18	14	14	7	6	6	4	3	6	2	3	5	5			
PzVI	0	0	0	0	0	0	0	23	0	11	0	0	0	0	0			
StuG III	31	28	25	23	23	11	11	19	17	15	14	17	17	0	0			
T-34	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm Gun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0			
20mm AA	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0			
45/50mm AT	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0			
50mm mtr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0			
75mm AT	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0			
75mm lt IG	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0			
81mm mtr	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0			
AC4-6w	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0			
AC8w	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0			
AC8w 75mm	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0			
Flamethr	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0			
LHT	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0			
MarderIII	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0			
MMG	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0			
Pz II	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
PzIII	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0			
PzIV	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0			
StuG III	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0			

6th PzD (PART 2 of 2)

DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
20mm AA	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	
37mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
75mm lt IG	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	
88mm AA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
AC4-6w	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	4	
LHT	0	0	2	2	4	2	2	1	1	0	0	0	0	0	0	14	
LHT37mmAT	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
MHT	0	0	1	2	2	1	1	1	1	1	1	0	0	0	0	11	
MHT37mmAT	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	
MHT75mmIG	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
MHTspt	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
Pz II	0	2	1	1	1	1	1	0	0	0	0	2	0	0	0	9	
PzIII	0	4	4	4	1	17	1	0	1	3	2	5	0	0	0	42	
PzIII spt	0	1	1	1	0	10	0	0	0	0	0	0	0	0	0	13	
PzIV	0	4	4	4	0	1	1	0	2	1	0	4	0	0	0	21	
PzVI	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	
StuG III	0	3	3	2	0	11	0	0	2	2	1	0	0	0	0	24	
T-34	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
AC4-6w	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	
LHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	
LHT37mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
MHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	
MHT37mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
MHT75mmIG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
MHTspt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Pz II	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PzIII	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	12	
PzIII spt	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PzIV	2	0	0	0	0	0	0	0	0	8	0	0	0	0	0	10	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
75mm AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
MarderII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
T-34	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
Wespe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm Gun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Pz II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
PzIII	0	0	0	0	0	0	1	0	0	0	0	0	3	3	0	7	
PzIV	0	0	0	0	0	0	0	0	0	0	3	0	1	2	0	6	
StuG III	0	0	0	0	0	0	0	8	0	0	0	3	0	0	0	11	

7th PzD (PART 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	14	14	4	13	4	4	4	12	12	12	12			
105mm How	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25			
150mm Gun	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
150mm How	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
150mm Lch	0	0	0	0	0	0	36	36	18	18	18	18	18	0	0			
20mm AA	30	30	96	96	120	120	110	108	78	48	75	75	74	47	17			
28/20mm AT	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
280mm Lch	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
37mm AA	0	0	0	0	9	9	9	9	0	0	0	0	0	0	0			
45/50mm AT	19	19	18	17	16	15	15	15	15	15	15	15	14	14	14			
75mm AT	9	9	9	8	7	6	6	6	6	6	6	6	6	6	6			
75mm lt IG	20	19	19	19	19	19	19	18	18	18	18	18	18	18	18			
81mm mtr	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34			
88mm AA	8	8	32	32	26	26	26	26	26	17	25	25	25	16	8			
AC4-6w	28	28	28	28	28	28	25	24	24	24	24	24	24	24	24			
AC8w	8	8	8	8	8	8	9	8	8	8	8	8	8	8	8			
AC8w 75mm	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Hummel	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
LHT	54	51	48	45	43	43	43	43	43	43	43	43	44	46	48			
LHT37mmAT	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2			
LHT81mmtr	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
MarderIII	9	9	8	7	7	6	6	6	6	6	6	6	6	6	7			
MHT	47	43	40	38	36	34	33	33	34	35	36	37	38	39	41			
MHT Flame	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
MHT37mmAT	6	5	5	5	5	5	6	5	5	5	5	5	5	5	5			
MHT75mmIG	2	2	2	2	2	2	2	1	0	0	0	0	0	0	0			
MHT81mmtr	4	4	4	4	4	4	4	3	2	1	1	1	1	1	1			
MHTspt	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MMG	67	67	67	67	67	66	66	64	64	64	64	64	64	64	64			
Pz II	11	9	7	5	4	4	4	4	4	4	4	4	4	4	4			
PzIII	60	50	40	36	23	28	30	29	31	21	13	14	14	14	23			
PzIV	38	30	22	17	13	20	26	10	10	10	10	9	9	9	13			
Wespe	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	0	1	0	0	2	0	1	0	0	4		
45/50mm AT	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	5		
75mm AT	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3		
75mm lt IG	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2		
81mm mtr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
88mm AA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
AC4-6w	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
AC8w	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
LHT	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	3		
MarderIII	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
MHT	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2		
MHT37mmAT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
MHT81mmtr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
MMG	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	3		
Pz II	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	4		
PzIII	0	1	2	2	3	0	0	3	0	3	2	0	0	0	0	16		
PzIV	0	0	1	1	0	0	0	3	0	0	0	0	0	0	0	5		

7th PzD (PART 2 of 2)

	DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	10	1	0	0	0	0	0	0	0	11		
AC4-6w	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4		
LHT	0	3	3	2	1	0	0	0	0	0	0	0	0	0	0	9		
LHT37mmAT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
MarderIII	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2		
MHT	0	4	3	2	2	2	0	0	0	0	0	0	0	0	0	13		
MHT Flame	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
MHT37mmAT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
MHT75mmIG	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2		
MHT81mmtr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
Pz II	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3		
PzIII	0	9	8	8	11	1	0	4	0	7	6	2	0	0	0	56		
PzIV	0	8	7	7	4	1	0	13	0	0	1	1	0	0	0	42		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
AC4-6w	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4		
LHT	1	0	0	0	0	0	10	0	0	0	0	0	0	0	0	11		
MHT	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13		
MHT Flame	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
MHT37mmAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Pz II	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
PzIII	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
AC4-6w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
AC8w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
LHT	0	0	0	0	0	0	0	1	0	0	0	0	1	2	2	6		
MarderIII	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		
MHT	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	9		
MHT37mmAT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
PzIII	0	0	0	6	1	6	2	6	2	0	0	3	0	0	9	35		
PzIV	0	0	0	3	0	8	6	0	0	0	1	0	0	0	4	22		

DR SS PzGrD (PART 1 of 3)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
105mm How	24	24	24	24	23	23	23	24	24	24	24	24	24	24	24			
150mm How	7	7	7	7	6	6	6	8	8	8	8	8	8	8	8			
150mm Luch	18	18	18	18	18	18	15	15	15	15	15	15	15	15	0			
20mm AA	44	44	44	42	42	41	38	43	43	43	43	41	40	41	41			
28/20mm AT	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22			
37mm AA	9	9	9	9	9	7	7	7	7	7	7	7	7	8	8			
45/50mm AT	33	33	31	31	31	31	31	30	31	28	27	29	28	28	28			
75mm AT	16	16	15	15	16	16	16	16	16	15	15	15	16	14	15			
75mm lt IG	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26			
81mm mtr	78	78	78	78	78	78	78	78	77	76	76	76	76	76	76			
88mm AA	12	11	11	11	11	11	12	12	12	12	12	12	12	12	12			
AC4-6w	35	35	35	35	35	35	33	33	33	33	33	33	33	33	33			
AC8w	8	8	8	8	8	8	10	10	10	10	10	10	10	10	10			
Flamethr	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
Grille	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12			
Hummel	6	6	6	6	6	5	4	3	2	2	2	2	2	2	4			
LHT	61	61	61	61	61	61	74	74	73	73	73	73	73	73	73			
LHT37mmAT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
LHT81mm mtr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
LHTspt	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3			
MarderII	2	2	2	1	1	2	3	3	3	3	3	3	3	2	1			
MarderIII	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9			
MHT	44	44	44	44	44	44	43	43	43	43	43	43	43	43	43			
MHT37mmAT	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
MHT75mmIG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
MHT81mm mtr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
MHTspt	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
MMG	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144			
Pz I	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0			
PzIII	62	62	55	51	39	39	41	42	49	52	50	45	45	43	44			
PzIII spt	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8			
PzIV	30	27	16	25	14	13	15	18	18	20	25	17	18	24	24			
PzVI	12	11	7	6	0	1	1	1	2	1	4	2	5	9	9			
StuG III	33	21	14	7	21	26	26	27	27	24	25	23	25	25	28			
T-34	18	16	15	14	12	7	7	8	8	11	12	13	11	17	17			
Wespe	12	12	12	12	12	12	11	11	11	11	11	11	11	11	12			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm How	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
150mm Luch	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3		
20mm AA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
28/20mm AT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
45/50mm AT	0	0	1	0	0	0	0	1	0	1	1	0	1	0	0	5		
75mm AT	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2		
81mm mtr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
88mm AA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
LHT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
PzIII	0	0	0	1	1	0	0	1	0	0	1	0	0	0	0	4		
PzIV	0	0	1	0	2	0	0	0	0	0	0	0	4	0	0	7		
PzVI	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
StuG III	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2		
T-34	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	4		

DR SS PzGrD(PART 2 of 3)

DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
20mm AA	0	0	0	2	0	2	3	0	0	0	0	2	1	0	0	10	
37mm AA	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3	
45/50mm AT	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3	
75mm AT	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	
88mm AA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
AC4-6w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
Hummel	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	4	
LHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
MarderII	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	3	
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Pz I	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
PzIII	0	0	7	4	11	0	0	0	1	0	1	5	0	2	0	31	
PzIIIsp	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
PzIV	0	3	10	0	9	1	0	0	0	0	0	8	0	0	0	31	
PzVI	0	2	4	1	5	0	0	0	0	1	0	2	0	0	0	15	
StuG III	0	12	7	7	0	0	0	0	0	3	0	2	0	0	0	31	
T-34	0	2	1	1	0	5	0	0	0	0	0	0	2	0	0	11	
Wespe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
20mm AA	1	1	0	0	0	0	2	0	0	0	0	0	0	1	0	5	
37mm AA	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	3	
AC4-6w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
AC8w	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Grille	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Hummel	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
LHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
MarderII	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
MHT	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	
MHT81mmtr	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
Pz I	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Pz II	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
PzIII	11	0	0	0	0	0	25	0	22	0	0	0	0	0	0	58	
PzIIIsp	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
PzIV	2	0	0	0	0	0	16	0	14	0	0	0	0	0	0	32	
PzVI	2	0	0	0	0	0	10	0	9	0	0	0	0	0	0	21	
StuG III	0	0	0	0	0	0	4	0	6	0	0	0	0	0	0	10	
T-34	9	0	0	0	0	0	14	0	0	0	0	0	0	0	0	23	
Wespe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
150mm How	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	
75mm AT	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
88mm AA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
LHT	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	14	
LHTspt	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	

DR SS PzGrD(PART 3 of 3)

	DAY																TOTAL
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
105mm How	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		1
20mm AA	0	0	0	0	0	1	1	5	0	0	0	0	0	0	0		7
37mm AA	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0		2
45/50mm AT	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0		3
75mm AT	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1		3
88mm AA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		1
AC8w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0		2
Grille	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		1
Hummel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		2
MarderII	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0		2
MarderIII	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		1
PzIII	5	0	0	1	0	0	2	2	8	3	0	0	0	0	1		22
PzIV	0	0	0	9	0	0	2	3	0	2	5	0	5	6	0		32
PzVI	0	1	0	0	0	1	0	0	1	0	3	0	3	4	0		13
StuG III	0	0	0	0	14	5	0	2	0	0	1	0	2	1	3		28
T-34	0	0	0	0	0	0	0	1	0	3	3	1	0	6	0		14
Wespe	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		2

GD PzGrD PART 1 of 3)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	12	12	11	11	11	11	11	11	11	11	11			
105mm How	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	15		
150mm How	12	12	12	12	12	12	11	11	11	10	10	10	10	10	10	11		
150mm LncH	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5		
20mm AA	44	44	44	42	42	41	43	43	42	37	37	37	37	37	37	40		
210mm How	0	0	0	0	9	9	9	9	9	9	9	9	9	0	0	0		
28/20mm AT	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2		
37mm AA	18	18	18	16	16	15	17	17	17	16	16	16	16	16	16	16		
45/50mm AT	17	17	17	17	17	16	16	16	16	16	16	16	16	16	14	14		
75mm AT	25	25	25	25	25	25	22	22	22	22	22	22	22	22	22	22		
75mm lt IG	16	16	16	16	16	16	15	15	15	15	15	14	14	14	14	14		
81mm mtr	87	87	87	87	87	86	84	84	84	84	83	81	81	81	81	81		
88mm AA	11	12	12	10	10	10	12	12	12	12	11	11	11	11	11	12		
AC4-6w	28	28	28	28	28	28	26	26	26	26	26	26	26	26	26	26		
AC8w	10	10	10	10	10	10	9	9	9	9	9	9	9	9	9	9		
AC8w 75mm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Flamethr	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26		
Grille	15	16	16	16	16	16	13	13	13	13	13	13	13	13	13	13		
Hummel	5	6	6	6	6	6	5	5	5	5	5	5	5	5	5	6		
LHT	37	41	41	41	41	41	40	40	40	40	40	40	40	40	40	40		
LHT37mmAT	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3		
LHT81mmmr	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2		
LHTspt	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4		
MarderII	19	19	19	19	19	19	17	17	17	17	17	15	15	15	15	14		
MHT	10	10	10	10	10	10	12	12	12	12	12	12	12	12	12	12		
MHT75mmIG	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6		
MHTspt	1	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4		
MMG	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125			
Pz II	3	3	3	3	3	3	3	7	7	6	5	5	6	6	6	6		
PzIII	32	29	19	19	14	14	11	11	11	11	12	10	9	19	18			
PzIIIIspt	20	20	18	18	18	18	18	18	18	17	14	9	13	15	15			
PzIV	60	40	22	21	25	25	38	40	22	24	23	18	31	31	31			
PzV	0	119	42	45	18	18	42	33	28	46	38	21	36	45	45			
PzVI	15	13	3	2	9	9	11	12	3	7	7	6	6	9	9			
StuG III	34	29	29	29	29	29	26	26	24	25	25	23	23	25	25			
Wespe	12	12	12	12	12	12	10	10	10	10	10	10	10	10	9			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
150mm How	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
150mm LncH	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
20mm AA	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	3		
28/20mm AT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
37mm AA	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3		
45/50mm AT	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	4		
75mm AT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
75mm lt IG	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2		
81mm mtr	0	0	0	0	0	1	2	0	0	0	1	2	0	0	0	6		
88mm AA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
MarderII	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2		
MMG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15		
PzIII	0	0	3	0	0	0	2	0	1	0	0	1	0	0	0	7		
PzIV	0	2	1	3	0	0	0	3	0	0	0	6	1	0	0	16		
PzV	0	14	14	0	0	1	0	3	0	0	7	0	1	0	0	40		
StuG III	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		

GD PzGrD (PART 2 of 3)

DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm Gun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
150mm How	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
20mm AA	0	0	0	1	0	2	2	0	1	5	0	0	0	0	0	11	
37mm AA	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	5	
75mm AT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
88mm AA	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	
AC4-6w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
AC8w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Grille	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	
Hummel	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
LHT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
LHT81mmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
MarderII	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	5	
Pz II	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	
PzIII	0	3	7	0	5	0	6	0	0	0	0	1	2	0	1	25	
PzIIIsp	0	0	2	0	0	0	1	0	0	1	3	5	0	0	0	12	
PzIV	0	18	17	0	0	0	0	0	18	0	1	1	1	2	0	58	
PzV	0	65	63	0	27	0	2	6	5	2	1	17	0	0	0	188	
PzVI	0	2	10	1	0	0	0	0	9	0	0	1	0	0	0	23	
StuG III	0	5	0	0	0	0	3	0	2	0	0	2	0	0	0	12	
Wespe	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
AC4-6w	6	0	0	0	0	0	8	0	0	0	0	0	0	0	0	14	
AC8w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Grille	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	4	
Hummel	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
LHT	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	14	
LHT37mmAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
LHT81mmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
LHTspt	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
MarderII	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	4	
MHT	9	0	0	0	0	0	8	0	0	0	0	0	0	0	0	17	
MHT75mmIG	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Pz II	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
PzIII	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15	
PzIIIsp	3	0	0	0	0	0	5	0	0	0	0	0	0	0	0	8	
PzIV	8	0	0	0	0	0	28	0	0	0	0	0	0	0	0	36	
PzV	0	0	0	0	0	81	131	0	0	0	0	0	0	0	0	212	
PzVI	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	
StuG III	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0	10	
T-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wespe	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
20mm AA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
MHTspt	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Pz II	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	
PzIV	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	
PzV	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	

GD PzGrD (PART 3 of 3)

	DAY																		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL			
150mm How	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
20mm AA	0	0	0	0	0	0	5	0	0	0	0	0	0	0	4	9			
37mm AA	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6			
45/50mm AT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
88mm AA	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	4			
Grille	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Hummel	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2			
LHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
LHT37mmAT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
LHTspt	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
MarderII	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2			
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
MHT75mmIG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
Pz II	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2			
PzIII	0	0	0	0	0	0	5	0	1	0	1	0	1	10	0	18			
PzIIIspt	0	0	0	0	0	0	1	0	0	0	0	0	4	2	0	7			
PzIV	0	0	0	2	4	0	9	5	0	2	0	2	15	2	0	41			
PzV	0	0	0	3	0	1	22	0	0	20	0	0	16	9	0	71			
PzVI	0	0	0	0	7	0	2	1	0	4	0	0	0	3	0	17			
StuG III	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	4			

LSSAH PzGrD (PT 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
105mm How	30	30	29	27	25	23	22	25	25	25	25	25	25	25	27			
150mm How	12	10	10	10	8	8	7	12	9	9	9	9	9	9	9			
150mm Lnch	42	42	42	42	42	42	42	42	42	59	59	57	57	57	5			
20mm AA	64	64	63	62	62	61	61	61	57	57	57	57	57	57	63			
210mm Lnch	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
280mm Lnch	18	18	18	18	18	18	18	18	18	18	18	18	18	18	0			
37mm AA	15	15	15	14	14	14	14	10	10	10	10	10	10	10	12			
45/50mm AT	37	37	37	37	37	37	35	35	32	31	30	29	28	27	25			
75mm AT	18	18	16	16	16	14	16	16	11	11	13	13	11	11	11			
75mm lt IG	16	16	16	15	15	15	15	15	14	14	14	14	14	14	14			
81mm mtr	70	70	70	70	70	67	67	67	67	67	67	67	67	66	65			
88mm AA	12	12	12	9	9	9	8	10	10	10	10	10	10	10	12			
AC4-6w	25	25	25	25	25	25	27	27	26	26	26	26	26	26	26			
AC8w	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5			
Flamethr	50	50	50	50	50	50	50	50	46	46	46	46	46	46	46			
Grille	12	12	12	12	12	12	12	12	12	12	10	10	10	10	10			
Hummel	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
LHT	59	59	59	59	59	59	72	72	72	72	72	72	72	72	72			
LHT37mmAT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
LHT81mm mtr	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4			
MarderII	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
MarderIII	20	21	22	22	20	20	20	19	19	19	19	17	18	17	15			
MHT	45	45	45	45	45	45	42	42	39	39	39	39	39	39	39			
MHT37mmAT	8	8	8	8	8	8	7	7	6	6	6	6	6	6	6			
MHT75mmIG	5	5	5	5	5	5	4	4	3	3	3	3	3	3	3			
MHT81mm mtr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
MHTspt	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4			
MMG	140	140	136	136	136	136	136	136	136	136	136	136	136	136	136			
Pz I	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2			
Pz II	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3			
PzIII	20	21	14	9	10	9	11	12	12	12	13	13	11	14	15			
PzIII spt	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
PzIV	79	77	55	33	40	32	42	48	32	32	33	33	43	47	56			
PzVI	12	7	5	4	1	4	4	4	3	3	5	8	9	9	9			
StuG III	34	23	16	13	20	22	20	10	20	20	21	28	30	28	28			
Wespe	12	12	12	12	12	12	12	12	12	11	11	10	10	10	12			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
105mm How	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
150mm How	0	0	0	0	1	0	1	0	3	0	0	0	0	0	0	5		
150mm Lnch	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	4		
20mm AA	0	0	1	1	0	1	0	1	4	0	0	0	0	0	0	8		
37mm AA	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4		
45/50mm AT	0	0	0	0	0	0	2	0	3	1	1	1	1	1	2	12		
75mm AT	0	1	0	0	0	2	0	0	5	0	0	0	2	1	0	11		
75mm lt IG	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2		
81mm mtr	0	0	0	0	0	3	0	0	0	0	0	0	0	1	1	5		
AC4-6w	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2		
Flamethr	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4		
LHT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2		
MarderIII	0	0	0	0	1	0	0	0	2	0	0	1	0	0	1	5		
MHT	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	5		
MHT37mmAT	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2		
MHT75mmIG	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2		
MMG	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4		
Pz I	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
PzIII	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
PzIV	0	0	3	2	0	0	0	0	4	0	0	0	0	0	0	9		
PzVI	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
StuG III	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	3		

LSSAH PzGrD (PT 2 of 2)

DAY																	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	1	2	2	2	0	0	0	0	0	0	0	0	0	7	
150mm How	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	3	
37mm AA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
75mm AT	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	
88mm AA	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4	
AC4-6w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
AC8w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Grille	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	
LHT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
MarderIII	0	0	0	0	1	0	0	1	0	0	0	1	0	1	1	5	
MHT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
Pz II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PzIII	0	0	6	5	0	1	0	0	0	0	0	0	2	0	0	14	
PzIV	0	3	19	20	0	8	0	0	12	0	0	4	0	0	0	66	
PzVI	0	5	2	1	3	0	0	0	1	0	0	0	0	0	0	12	
StuG III	0	10	7	3	0	0	2	9	0	0	0	3	0	2	0	36	
Wespe	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
20mm AA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
AC4-6w	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5	
AC8w	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
Hummel	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3	
LHT	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9	
MarderIII	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
MHT	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0	6	
PzIII	2	0	0	0	0	0	7	0	8	0	0	0	0	0	0	17	
PzIIIspt	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	
PzIV	0	0	0	0	0	0	31	0	32	0	0	0	0	0	0	63	
PzVI	1	0	0	0	0	0	4	0	9	0	0	0	0	0	0	14	
StuG III	1	0	0	0	0	0	9	0	10	0	0	0	0	0	0	20	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
150mm How	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	
20mm AA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	
37mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
75mm AT	0	1	0	0	0	0	0	0	0	0	2	0	0	1	0	4	
AC4-6w	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5	
LHT	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	17	
LHT81mmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
MarderIII	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	
MHTspt	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
PzIV	0	0	0	0	0	0	2	0	0	0	0	0	0	0	9	11	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
105mm How	0	0	0	0	0	0	0	3	0	0	0	0	0	0	2	5	
150mm How	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	
20mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
37mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
75mm AT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	
88mm AA	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4	
MarderIII	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3	
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
PzIII	0	1	0	0	1	0	2	1	0	0	1	0	0	3	1	10	
PzIV	0	1	0	0	7	0	8	6	0	0	1	4	10	4	0	41	
PzVI	0	1	0	0	0	3	0	0	0	0	2	3	1	0	0	10	
StuG III	0	0	0	0	7	3	0	0	10	0	1	10	2	0	0	33	
Wespe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	

T SS PzGrD (PART 1 of 2)

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm Gun	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
105mm How	20	20	20	20	20	20	20	24	24	24	24	24	24	24	24			
150mm Gun	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
150mm How	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
150mm LncH	24	24	22	22	22	0	22	22	22	22	22	22	22	22	22			
20mm AA	41	41	40	40	40	40	40	39	39	39	37	37	37	37	37			
210mm LncH	0	0	0	18	18	18	18	18	18	18	18	18	18	18	18	0		
37mm AA	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8			
45/50mm AT	32	32	32	32	32	32	32	33	32	31	30	29	28	28	27			
75mm AT	19	20	19	19	19	20	16	16	16	15	15	15	16	16	16			
75mm lt IG	24	24	24	24	24	24	24	24	23	23	21	21	21	20	20			
81mm mtr	82	82	81	81	81	81	81	81	81	81	81	81	81	81	81			
88mm AA	10	10	10	10	10	9	9	11	11	11	11	11	11	11	12			
AC4-6w	27	27	27	27	27	27	28	28	27	27	27	27	27	27	27			
AC8w	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8			
Flamethr	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Hummel	5	5	5	5	5	5	6	6	6	6	6	6	6	6	5			
LHT	50	50	50	50	50	50	65	65	65	65	65	65	65	65	65			
LHT37mmAT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
LHT81mmtr	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
LHTspt	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3			
MarderII	11	11	9	9	9	11	11	11	7	2	2	2	3	3	3			
MHT	53	52	51	50	49	49	50	50	49	48	47	46	45	44	43			
MHT37mmAT	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6			
MHT75mmIG	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1			
MHT81mmtr	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
MHTspt	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4			
MMG	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144			
PzIII	67	64	59	61	59	52	53	61	49	37	35	34	37	38	37			
PzIIIsp	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
PzIV	47	47	43	43	35	27	28	30	24	17	17	20	27	29	28			
PzVI	12	7	7	7	6	3	3	11	6	1	6	8	10	8	8			
StuG III	28	21	21	13	13	12	21	21	20	20	16	16	20	20	20			
Wespe	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
150mm LncH	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
20mm AA	0	0	1	0	0	0	0	3	0	0	1	0	0	0	0	5		
37mm AA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
45/50mm AT	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	6		
75mm AT	0	0	1	0	0	0	4	0	0	1	0	0	0	1	0	7		
75mm lt IG	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	4		
81mm mtr	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
88mm AA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
AC4-6w	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
AC8w	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
MarderII	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
MHT	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	8		
MHT37mmAT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
PzIII	0	0	1	0	0	1	0	0	2	1	1	0	0	0	0	6		
PzIV	0	0	2	0	2	3	0	0	0	0	0	0	0	0	0	7		
PzVI	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
StuG III	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
20mm AA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
Hummel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
MarderII	0	0	2	0	0	0	0	0	3	4	0	0	0	0	0	9		
MHT	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3		
MHT75mmIG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
PzIII	0	3	4	0	2	6	0	0	10	11	3	1	0	0	1	41		
PzIV	0	0	2	0	6	5	0	3	6	7	0	0	0	0	1	30		
PzVI	0	4	0	0	1	3	0	0	5	5	0	0	0	2	0	20		
StuG III	0	7	0	7	0	1	0	0	1	0	3	0	0	0	0	19		
Wespe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			

T SS PzGrD (PART 2 of 2)

	DAY																			
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL				
AC4-6w	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2				
AC8w	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2				
Hummel	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
LHT	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5				
LHT81mmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
MHT	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0	6				
MHT37mmAT	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3				
MHT75mmIG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
MHTspt	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
PzIII	0	0	0	0	0	0	0	8	13	0	0	0	0	0	0	21				
PzIII spt	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4				
PzIV	4	0	0	0	0	0	0	17	13	0	0	0	0	0	0	34				
PzVI	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	5				
StuG III	7	0	0	0	0	0	13	11	12	0	0	0	0	0	0	43				
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL				
105mm How	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4				
20mm AA	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2				
45/50mm AT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1				
75mm AT	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	4				
88mm AA	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3				
AC4-6w	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
LHT	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15				
LHTspt	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3				
MHTspt	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL				
Hummel	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
MarderII	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3				
MHT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
MHTspt	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1				
PzIII	0	0	0	2	0	0	1	8	0	0	2	0	3	1	0	17				
PzIV	0	0	0	0	0	0	1	5	0	0	0	3	7	2	0	18				
PzVI	0	0	0	0	0	0	0	8	0	0	5	2	2	0	0	17				
StuG III	0	0	0	0	0	0	9	0	0	0	0	0	4	0	0	13				

UNATTACHED

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
105mm How	0	0	0	12	12	11	11	11	11	11	11	11	11	11	0			
150mm How	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
20mm AA	0	0	0	0	0	0	30	30	30	60	60	60	60	120	144			
37mm AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9			
88mm AA	0	0	0	0	0	0	12	12	12	24	24	24	24	48	48			
LHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
PzVI	0	0	0	0	0	0	0	0	0	0	0	0	15	15	14			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
PzVI	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
PzVI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
PzVI	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9		

APPENDIX I

DATA TABLES FOR WEAPON STATUS IN SOVIET UNITS

I-1. INTRODUCTION. This appendix contains data tables showing weapon statistics for individual Soviet units in the KDB. Statistics reflect status as recorded in the KDB. Tables are shown only for the 67 primary combat units listed in Table 3-2. As noted in Chapter 2, weapon assets in small units attached to these primary units on a day are included in the primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Units that are not attached to any primary parent combat unit on a day have their assets combined either into a dummy unit called UNATTACHED, if that unit is attached to a parent on at least 1 day of the campaign, or into a dummy unit called OTHER NONDIV if that unit is never attached to a parent during the campaign. Each of these dummy units is listed as a regular unit in the tables. Daily status in the KDB is as of 1800 on the indicated day. The weapon status categories are:

- a. OH denotes onhand effective weapons.
- b. DST + ABND denotes total destroyed plus total abandoned weapons.
- c. DAMAGED denotes number of items damaged in action.
- d. IN REPAIR denotes items in repair. According to KDB documentation, this field is strictly optional and is usually not used in the KDB.
- e. REPLACED denotes number of items received or transferred as replacements. Negative values denote items transferred out of a unit to serve as replacements elsewhere.
- f. RETURNS primarily denotes number of items returning to operational status from repair.

I-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The order and nomenclature of units is the same as that used in Table 3-2. For each weapon status category in each tabulated unit, there is a column entry in each row (weapon type) for each calendar day from 4 (July) through 18 (July) in 1943. Row (weapon type) totals over the KDB scenario are given in the rightmost column for all weapon status categories except ONHAND. A weapon type is listed under a weapon status category only if at least 1 day has a nonzero table entry in that status category. If the KDB records no weapons in a weapon status category for a unit, the name ALL is listed in that category with all zero entries. The classification and nomenclature of weapon types is essentially that used in the KDB. Many of the abbreviations are defined in the glossary, but the user is referred to the KDB documentation for details on vehicle/weapon model numbers and characteristics.

I-3. SOVIET COMBAT UNIT WEAPON DATA**6th Gds AbnD**

ON HAND																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
120mmmmtr	23	23	23	23	23	23	23	23	22	21	20	20	20	20	20	
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
45mmAT	45	45	45	45	45	45	45	45	44	43	43	43	43	43	43	
50mmmmtr	54	54	54	54	54	54	54	54	54	54	53	53	53	53	53	
76mmGun	36	36	36	36	36	36	36	36	35	35	34	34	34	34	34	
82mmmmtr	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	
ATR	246	246	246	246	246	246	246	246	247	248	249	249	249	249	249	
MG	160	160	160	160	160	160	160	160	159	159	158	158	158	158	158	
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
76mmGun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
120mmmmtr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
45mmAT	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
MG	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ATR	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9th Gds AbnD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	47	47	47	47	47	47	47	46	44	42	40	40	39	39	38			
50mmmr	54	54	54	54	54	54	54	51	47	44	41	39	37	37	35			
76mmGun	36	36	36	36	36	36	36	35	33	31	29	29	28	28	27			
82mmmr	72	72	72	72	72	72	72	71	70	69	68	67	67	67	66			
ATR	242	242	242	242	242	242	242	238	231	224	217	215	213	213	209			
MG	162	162	162	162	162	162	162	158	154	150	146	145	144	144	142			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	1	1	1	1	0	1	0	1	6		
76mmGun	0	0	0	0	0	0	0	1	1	1	1	0	1	0	1	6		
82mmmr	0	0	0	0	0	0	0	1	0	1	1	1	1	0	1	6		
50mmmr	0	0	0	0	0	0	0	2	3	2	2	1	1	0	1	12		
MG	0	0	0	0	0	0	0	3	3	3	3	1	1	0	1	15		
ATR	0	0	0	0	0	0	0	3	5	5	5	1	1	0	3	23		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3		
50mmmr	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	7		
76mmGun	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3		
ATR	0	0	0	0	0	0	0	1	2	2	2	1	1	0	1	10		
MG	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	5		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Trufanovs Det

Trainers Det																		
	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
122mmHow	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
45mmAT	20	20	20	20	20	20	20	20	15	8	8	8	8	8	7			
ATR	44	44	44	44	44	44	44	44	44	42	42	42	42	42	42			
BA-64	21	21	21	21	21	21	21	21	18	14	14	14	14	14	14			
MG	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22			
T-34	35	35	35	35	35	35	35	35	27	18	18	15	15	15	15			
T-70	9	9	9	9	9	9	9	9	6	6	6	6	6	6	6			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	5	7	0	0	0	0	1	13		
ATR	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2		
BA-64	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	6		
MG	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
T-34	0	0	0	0	0	0	0	0	3	14	0	3	0	0	0	20		
T-70	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
BA-64	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
T-34	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5		

1st Tank Army

1st Tank Army																
	DAY															
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
120mmmr	36	36	36	36	33	33	33	33	33	33	31	31	31	31	31	
37mmAA	48	48	57	96	94	90	90	43	43	43	43	43	43	43	43	
76mmGun	9	0	2	20	18	16	44	51	31	20	8	8	8	8	8	
82mmmr	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	
85mm AT	36	36	36	34	33	31	29	27	25	25	25	25	25	25	25	
85mmAA	16	16	16	32	30	30	30	16	16	16	16	16	16	16	16	
AA MG	46	46	46	94	83	83	83	46	46	46	46	46	46	46	46	
Armtpt	3	0	0	0	0	0	0	2	2	2	0	0	0	0	0	
ATR	90	113	160	133	126	133	154	139	126	106	99	99	99	99	99	
BA-64	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	
BM-13	0	23	45	20	24	24	24	24	24	24	24	24	24	24	24	
MG	0	14	32	14	14	14	14	14	14	14	14	14	14	14	14	
SU-122	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
T-34	0	0	43	0	0	19	7	10	14	0	0	0	0	0	0	
T-60	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	
T-70	0	0	23	0	0	9	2	3	5	0	0	0	0	0	0	
DST + ABND	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
120mmmr	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2
37mmAA	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	5
76mmGun	0	0	0	1	1	1	2	4	0	0	0	0	0	0	0	9
85mm AT	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	4
AA MG	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
ATR	0	0	0	4	5	3	11	5	2	1	2	0	0	0	0	33
T-34	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
T-70	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmmr	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	3
37mmAA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
76mmGun	0	0	0	1	1	1	3	4	1	0	0	0	0	0	0	11
85mm AT	0	0	0	1	1	1	1	2	1	0	0	0	0	0	0	7
85mmAA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
AA MG	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
ATR	0	0	0	1	2	1	1	2	1	0	2	0	0	0	0	10
BM-13	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
T-34	0	0	0	0	0	0	9	1	1	0	0	0	0	0	0	11
T-70	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	-5
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
T-70	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
BM-13	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
T-34	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	9

22d Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
45mmAT	0	6	4	4	2	0	0	0	0	0	0	0	0	0	0			
ATR	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8		
45mmAT	0	14	2	0	2	2	0	0	0	0	0	0	0	0	0	20		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

23d Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
122mmGun	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36			
ATR	0	0	0	0	0	0	0	23	23	59	59	36	36	36	36			
BM-13	0	0	0	0	0	0	0	24	24	24	24	0	0	0	0			
MG	0	0	0	0	0	0	0	14	14	14	14	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

24th Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	9	0	4	4	4	4	4	0	0	0	0	0	0	0	0			
50mmmmtr	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
76mmGun	4	0	2	2	2	2	2	0	0	0	0	0	0	0	0			
82mmmmtr	6	0	7	7	7	7	7	0	0	0	0	0	0	0	0			
Armtpt	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0			
ATR	36	0	21	44	44	44	44	0	0	0	23	23	23	23	23			
BA-64	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
BM-13	0	0	0	24	23	22	21	0	0	0	22	22	22	22	22			
KV-1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
MG	4	0	6	20	20	20	20	0	0	0	14	14	14	14	14			
MK-2/3	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
SU-152	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0			
T-34	28	0	35	35	38	41	41	0	0	0	0	0	0	0	0			
T-70	6	0	5	5	5	4	4	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
BM-13	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0			
T-34	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0			
T-70	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
BM-13	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0			
T-34	0	0	11	2	0	0	0	0	0	0	0	0	0	0	0			
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
SU-152	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
T-34	0	0	9	0	9	6	6	0	0	0	0	0	0	0	0			
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0			
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	6	4	3	3	0	0	0	0	0	0	0	0	0			

25th Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0			
50mmmmtr	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0			
76mmGun	9	9	0	0	0	0	3	0	0	0	0	0	0	0	0			
82mmmmtr	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0			
Armtpt	3	3	0	0	0	3	5	3	0	0	0	0	0	0	0			
ATR	0	0	23	34	23	23	45	23	23	23	0	0	0	0	0			
BA-64	6	3	0	0	0	1	1	1	0	0	0	0	0	0	0			
BM-13	0	0	23	22	22	22	22	22	22	22	0	0	0	0	0			
KV-1	22	0	0	0	0	1	1	1	0	0	0	0	0	0	0			
MG	0	0	14	14	14	14	17	14	14	14	0	0	0	0	0			
MK-2/3	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0			
SU-122	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0			
SU-152	0	0	0	0	0	10	11	11	0	0	0	0	0	0	0			
T-34	33	6	0	20	0	0	2	0	0	0	0	0	0	0	0			
T-70	7	2	0	4	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26		
T-70	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
BM-13	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2		
MK-2/3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3		
T-34	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6		
SU-152	0	0	0	0	0	1	5	5	0	0	0	0	0	0	0	11		
T-60	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
T-70	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6		
SU-152	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		

32d Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
76mmGun	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4			
Armtpt	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1			
ATR	0	0	0	0	0	0	0	0	0	0	0	0	0	23	23			
BA-64	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1			
BM-13	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24			
MG	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

33d Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
122mmHow	0	0	0	0	0	0	0	39	39	39	39	39	39	39	39			
ATR	0	0	0	0	0	0	0	40	40	40	40	40	40	63	63			
BM-13	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24			
MG	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

35th Gds RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	0	0	0	0	0	0	9	0	0	0	9	9	9	9	9			
76mmGun	0	0	0	0	0	0	4	0	0	0	3	3	3	3	3			
82mmmtr	0	0	0	0	0	0	5	0	0	0	5	5	5	5	5			
Armtpt	0	0	0	0	0	0	3	0	0	0	3	3	3	3	3			
ATR	0	0	0	0	0	0	24	0	0	0	43	43	43	43	43			
BM-13	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20			
MG	0	0	0	0	0	0	4	0	0	0	17	17	17	17	17			
T-34	0	0	0	0	0	0	20	0	0	0	9	7	7	5	5			
T-60	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0			
T-70	0	0	0	0	0	0	5	0	0	0	3	3	3	6	6			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0		5	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	8	0	0	0	4	1	0	2	0		15	
T-70	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		1	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0		5	
T-70	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0		3	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-60	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0		2	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0		3	

40th Army

DAY

ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
122mmGun	36	36	36	0	0	0	0	0	0	0	0	0	0	0	0	
122mmHow	40	40	40	40	40	40	39	0	0	0	0	0	0	0	0	
37mmAA	66	66	18	0	0	0	0	0	0	0	0	0	0	0	0	
45mmAT	20	20	39	17	11	5	5	5	4	4	0	0	0	0	0	
76mmGun	106	135	94	47	25	9	23	9	9	4	12	12	12	12	12	
82mmmr	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	
85mmAA	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	
AA MG	48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	
Armtpt	3	9	9	6	1	1	3	1	1	0	2	2	2	2	2	
ATR	312	312	282	114	114	86	86	46	46	46	0	0	0	0	0	
BA-64	0	2	2	2	1	1	2	1	1	0	1	1	1	1	1	
BM-13	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	
M-3	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	
MG	8	8	8	14	14	0	0	0	0	0	0	0	0	0	0	
SU-122	0	12	12	11	7	8	7	6	6	0	0	0	0	0	0	
T-34	83	84	82	0	0	0	0	0	0	0	0	0	0	0	0	
T-60	12	12	11	0	0	0	0	0	0	0	0	0	0	0	0	
T-70	24	24	24	0	0	0	0	0	0	0	0	0	0	0	0	
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
122mmHow	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
45mmAT	0	0	0	0	6	9	0	0	1	0	0	0	0	0	0	16
76mmGun	0	0	0	1	2	12	2	1	2	0	0	0	0	0	0	20
Armtpt	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
ATR	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
SU-122	0	0	0	0	4	0	1	1	0	0	0	0	0	0	0	6
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
76mmGun	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
ATR	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
SU-122	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
T-34	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
T-60	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5
76mmGun	0	0	0	0	0	4	4	2	0	0	0	0	0	0	0	10
SU-122	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
T-34	12	11	13	0	0	0	0	0	0	0	0	0	0	0	0	36
T-60	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	10
T-70	7	7	7	0	0	0	0	0	0	0	0	0	0	0	0	21
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
76mmGun	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4
SU-122	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
T-34	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1

47th RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

48th RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

49th RC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0			
50mmmr	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0			
76mmGun	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0			
82mmmr	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0			
Armtpt	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0			
ATR	0	0	0	0	0	0	0	66	23	23	0	0	0	0	0			
BM-13	0	0	0	0	0	0	0	20	20	20	0	0	0	0	0			
MG	0	0	0	0	0	0	0	23	14	14	0	0	0	0	0			
MK-2/3	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0			
T-34	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0			
T-70	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
BM-13	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
MK-2/3	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
T-70	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4		

52d RC

	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
ON HAND																		
122mmGun	0	0	0	36	36	36	36	0	0	0	0	0	0	0	0			
37mmAA	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0			
85mmAA	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0			
AA MG	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0			
ATR	0	0	0	36	36	59	36	0	0	0	0	0	0	0	0			
BM-13	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0			
MG	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

5th Gds Army

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	143	143	143	143	143	143	143	143	139	139	138	138	138	138	138			
37mmAA	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48			
76mmGun	40	40	40	40	40	40	40	32	24	24	24	22	22	22	22			
85mmAA	16	16	16	16	16	16	16	16	15	15	15	15	15	15	15			
AA MG	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48			
ATR	215	215	215	215	215	215	215	238	229	206	204	204	204	207	211			
BM-13	24	24	24	24	24	24	24	48	48	24	24	24	24	24	24			
MG	14	14	14	14	14	14	14	28	28	14	14	14	14	14	14			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
76mmGun	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	6		
85mmAA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
ATR	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4		
76mmGun	0	0	0	0	0	0	0	5	5	0	0	2	0	0	0	12		
ATR	0	0	0	0	0	0	0	0	5	0	2	0	0	0	0	7		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	0	5	0	7	7	7	4	0	30		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7		

5th Gds Tank Army

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	45	45	45	45	45	45	45	45	44	44	44	44	44	44	44			
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0			
76mmGun	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0			
85mm AT	48	48	48	48	48	48	48	44	43	40	40	40	40	40	40			
85mmAA	15	15	15	15	15	15	15	15	14	14	14	14	14	14	14			
AA MG	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48			
Armtpt	3	3	3	3	3	3	3	3	2	1	1	1	1	1	1			
ATR	95	95	95	95	95	95	72	72	61	60	60	60	142	60	59			
BA-64	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0			
BM-13	24	24	24	24	24	24	0	0	0	0	0	0	0	0	0			
MG	14	14	14	14	14	14	0	0	0	0	0	0	0	0	0			
MK-4	20	20	20	20	20	20	20	20	14	7	7	6	6	6	6			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
85mm AT	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	4		
Armtpt	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
ATR	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8		
BA-64	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
MK-4	0	0	0	0	0	0	0	0	5	6	0	1	0	0	0	12		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
85mm AT	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4		
ATR	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	5		
MK-4	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

69th Army

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	17	17	17	16	14	14	14	14	14	14	14	14	14	14	14			
45mmAT	20	20	0	0	0	0	0	0	0	0	0	0	8	8	8			
57mm AT	0	0	0	0	0	0	20	20	20	20	18	16	16	16	16			
76mmGun	24	24	0	0	0	0	40	40	40	33	23	12	32	32	32			
85mmAA	12	12	12	12	10	10	10	10	10	10	10	10	10	10	10			
AA MG	18	18	18	17	14	12	12	12	12	11	11	11	11	10	10			
ATR	60	60	0	0	0	0	128	82	82	80	76	72	123	123	123			
BM-13	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0			
MG	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
37mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
57mm AT	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3		
76mmGun	0	0	0	0	0	0	0	0	0	5	8	9	0	0	0	22		
85mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
AA MG	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3		
ATR	0	0	0	0	0	0	0	0	0	2	3	4	0	0	0	9		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
37mmAA	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
57mm AT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
76mmGun	0	0	0	0	0	0	0	0	0	2	2	2	0	0	0	6		
85mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
AA MG	0	0	0	0	2	1	0	0	0	1	0	0	0	1	0	5		
ATR	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

6th Gds Army

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
122mmGun	0	0	0	0	0	0	0	36	36	0	0	0	0	0	0			
37mmAA	48	48	48	46	41	41	39	84	85	85	85	85	85	86	86			
45mmAT	40	20	0	0	0	0	0	0	0	0	0	0	0	0	0			
76mmGun	57	37	60	54	0	0	0	0	0	0	0	0	0	26	26			
85mmAA	16	16	16	16	12	11	12	26	26	26	26	26	26	26	26			
AA MG	46	46	46	45	36	31	33	67	71	71	71	71	71	70	67			
ATR	77	57	82	81	0	0	0	36	36	0	0	0	23	84	84			
BM-13	0	0	0	0	0	0	0	0	0	0	0	0	21	21	21			
MG	0	0	0	0	0	0	0	0	0	0	0	0	14	14	14			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
37mmAA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2		
76mmGun	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4		
85mmAA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2		
AA MG	0	0	0	0	3	2	0	1	0	0	0	0	0	0	1	7		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
37mmAA	0	0	0	2	3	0	2	1	0	0	0	0	0	0	0	8		
76mmGun	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2		
85mmAA	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3		
AA MG	0	0	0	1	6	3	0	2	0	0	0	0	0	1	2	15		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
37mmAA	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2		
85mmAA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
AA MG	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0	6		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

7th Gds Army

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ON HAND	54	50	46	42	42	42	42	42	42	42	42	39	39	39	39
152mmGun	84	80	80	70	70	70	70	70	70	70	70	70	70	70	70
37mmAA	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45mmAT	90	67	61	55	31	31	27	28	24	20	20	20	20	16	16
76mmGun	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82mmtr	16	16	16	12	12	12	12	12	12	12	12	12	12	12	12
85mmAA	112	112	112	103	103	103	100	100	100	100	95	95	95	95	95
AA MG	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Armtpt	250	143	136	131	103	98	93	88	83	81	91	91	91	91	91
ATR	0	0	0	0	0	4	4	3	2	2	4	4	4	4	4
BA-64	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BM-13	0	0	0	0	0	6	7	7	8	8	8	8	8	10	10
KV-1	0	0	0	6	6	6	8	8	8	8	16	16	16	16	16
M-3	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MG	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
SU-122	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
SU-152	46	0	0	0	0	5	10	10	4	4	4	4	4	4	4
T-34	4	0	0	0	0	2	7	7	1	1	1	1	1	1	1
T-70															

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
DST + ABND	0	2	2	1	0	0	0	0	0	0	0	1	0	0	0	6
152mmGun	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
37mmAA	0	2	2	2	9	2	2	2	1	1	0	0	0	0	0	23
76mmGun	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
85mmAA	0	0	0	3	0	0	1	0	0	0	2	0	0	0	0	6
AA MG	0	7	7	7	28	5	5	5	5	2	0	0	0	0	0	71
ATR	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
T-34																

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
DAMAGED	0	2	2	3	0	0	0	0	0	0	0	2	0	0	0	9
152mmGun	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
37mmAA	0	4	4	4	15	2	2	2	3	3	0	0	0	0	0	39
76mmGun	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
85mmAA	0	0	0	6	0	0	2	0	0	0	3	0	0	0	0	11
AA MG	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
BA-64	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4
T-70																

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
IN REPAIR	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
45mmAT	8	0	0	0	0	2	2	1	1	1	1	1	1	1	1	20
76mmGun	0	0	0	0	0	3	2	2	1	1	1	1	1	0	0	12
KV-1	0	0	0	0	0	2	2	1	1	1	1	1	1	1	1	12
SU-122	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
T-34	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	6
T-60	0	0	0	0	0	0	0	3	4	4	4	4	4	4	4	31
T-70																

7th Gds Army

DAY

REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
76mmGun	0	0	0	0	0	0	0	5	0	0	0	0	0	-4	0	1
ATR	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10
BA-64	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
KV-1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
M-3	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8
SU-122	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
SU-152	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
T-34	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	6
T-70	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
KV-1	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	3
M-3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
T-70	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3

Voronezh
Front

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	0	0	0	0	0	0	0	0	9	18	18	18	18	18	18			
76mmGun	20	0	0	0	0	0	0	0	2	3	3	3	3	3	3			
82mmtr	0	0	0	0	0	0	0	0	6	12	12	12	12	12	12			
Armtpt	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ATR	69	23	0	0	0	0	0	9	33	53	61	61	61	61	61			
BA-64	3	2	2	2	2	0	0	0	1	1	1	1	1	1	1			
BM-13	71	24	0	0	0	0	0	0	0	0	0	0	0	0	0			
KV-1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0			
KV-2	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0			
M-3	0	0	0	0	0	0	0	0	9	9	9	9	9	9	9			
MG	42	14	0	0	0	0	0	0	4	7	7	7	7	7	7			
T-34	0	0	0	0	0	0	0	0	19	51	51	51	51	51	51			
T-70	0	0	0	0	0	0	0	0	6	15	15	15	15	15	15			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
T-34	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
BA-64	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
M-3	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5	30		
T-34	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
T-70	0	0	0	0	0	0	0	0	1	6	0	0	0	0	0	7		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	-20	-1	31	-18	0	0	0	0	-8		
T-60	0	0	0	0	0	0	0	0	-6	0	0	0	0	0	0	-6		
T-70	0	0	0	0	0	0	0	-8	-8	9	-7	0	0	0	0	-14		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		

3d Mech Corps

DAY

ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
120mmtr	54	54	54	48	48	48	42	36	36	36	36	36	36	36	36	
37mmAA	10	10	11	21	22	32	32	32	23	23	23	23	23	23	23	
45mmAT	56	56	53	45	45	38	31	24	24	24	24	24	38	40	24	
76mmGun	44	44	42	30	24	25	25	25	24	24	25	27	52	52	51	
82mmtr	106	106	106	100	96	102	78	53	47	47	47	47	47	47	47	
Armtpt	30	30	29	29	28	31	30	30	30	30	30	30	30	30	30	
ATR	391	391	389	394	337	309	231	153	129	126	126	126	147	147	138	
BA-64	39	39	39	36	33	32	30	28	28	28	28	28	28	28	28	
BM-13	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	
KV-1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
KV-2	0	0	0	0	0	10	9	9	2	5	1	1	1	1	1	
M-3	0	0	0	0	0	31	28	28	28	21	16	19	19	19	19	
MG	198	198	196	158	128	103	83	63	59	59	59	59	59	59	59	
T-34	194	194	158	113	58	46	34	46	57	51	44	42	77	77	77	
T-60	7	7	7	10	9	9	7	6	7	3	3	2	4	4	4	
T-70	30	30	29	41	21	18	15	12	14	10	30	30	30	30	30	
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmtr	0	0	0	6	0	0	6	6	0	0	0	0	0	0	0	18
45mmAT	0	0	3	8	0	7	7	7	0	0	0	0	0	0	0	32
76mmGun	0	0	2	14	6	3	0	0	0	1	0	0	0	0	0	26
82mmtr	0	0	0	12	4	0	24	25	0	0	0	0	0	0	0	65
Armtpt	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	3
ATR	0	0	2	19	57	55	78	78	0	0	0	0	0	0	0	289
BA-64	0	0	0	3	3	3	2	2	0	0	0	0	0	0	0	13
BM-13	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
KV-1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
KV-2	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
M-3	0	0	0	0	0	20	3	0	1	0	1	0	0	0	0	25
MG	0	0	2	42	30	29	20	20	0	0	0	0	0	0	0	143
T-34	0	0	17	36	47	15	10	12	0	0	0	0	0	0	0	137
T-60	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
T-70	0	0	0	7	15	4	3	3	0	0	0	0	0	0	0	32
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
76mmGun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
KV-2	0	0	0	0	0	0	1	0	2	0	4	0	0	0	0	7
M-3	0	0	0	0	0	7	0	0	1	0	4	0	0	0	0	12
T-34	0	0	19	52	8	3	2	2	0	6	7	2	0	0	0	101
T-60	0	0	0	3	0	0	2	2	0	4	0	1	0	0	0	12
T-70	0	0	1	4	5	1	0	0	0	4	0	0	0	0	0	15
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6
KV-2	0	0	0	0	0	0	1	1	3	0	4	4	4	4	4	25
M-3	0	0	0	0	0	5	5	5	5	0	0	0	0	0	0	20
T-34	0	0	19	71	79	76	78	54	28	34	41	43	40	40	40	643
T-60	0	0	0	3	2	2	4	5	0	4	4	5	3	3	3	38
T-70	0	0	1	5	10	9	9	9	0	4	4	4	4	4	4	67
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
37mmAA	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4
T-34	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	32
T-70	0	0	0	0	0	0	0	0	2	0	20	0	0	0	0	22

3d Mech Corps

DAY

RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
76mmGun	0	0	0	0	0	0	0	0	1	1	1	2	2	0	0	7
KV-2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
M-3	0	0	0	0	0	0	0	0	2	2	0	3	0	0	0	7
T-34	0	0	0	0	0	6	0	26	20	0	0	0	3	0	0	55
T-60	0	0	0	0	1	0	0	1	1	0	0	0	2	0	0	5
T-70	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4

5th Gds MC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	48	48	48	48	48	48	48	48	47	46	45	44	44	44	44			
37mmAA	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8			
45mmAT	46	46	46	46	46	46	46	46	43	38	35	32	31	31	31			
76mmGun	56	56	56	56	56	56	56	56	55	54	53	53	53	53	53			
82mmmr	83	83	83	83	83	83	83	83	80	73	69	66	65	65	65			
Armtpt	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27			
ATR	355	355	355	355	355	355	355	355	344	323	311	301	299	299	299			
BA-64	35	35	35	35	35	35	35	35	34	31	30	29	29	29	29			
MG	180	180	180	180	180	180	180	180	175	164	157	153	152	152	152			
SU-122	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
T-34	141	141	141	141	141	141	141	141	138	96	70	40	54	62	68			
T-70	48	48	48	48	48	48	48	48	45	42	26	25	25	25	24			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	4		
37mmAA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	0	0	0	2	4	2	2	1	0	0	11		
76mmGun	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3		
82mmmr	0	0	0	0	0	0	0	0	2	5	3	2	1	0	0	13		
ATR	0	0	0	0	0	0	0	0	8	15	8	7	1	0	0	39		
BA-64	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	5		
MG	0	0	0	0	0	0	0	0	4	8	5	3	1	0	0	21		
T-34	0	0	0	0	0	0	0	0	2	24	15	18	0	0	0	59		
T-70	0	0	0	0	0	0	0	0	2	2	9	1	0	0	0	14		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	4		
82mmmr	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	5		
ATR	0	0	0	0	0	0	0	0	3	6	4	3	1	0	0	17		
BA-64	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
MG	0	0	0	0	0	0	0	0	1	3	2	1	0	0	0	7		
T-34	0	0	0	0	0	0	0	0	1	18	11	12	0	0	0	42		
T-70	0	0	0	0	0	0	0	0	1	1	7	0	0	0	1	10		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	1	19	30	42	28	20	14	154		
T-70	0	0	0	0	0	0	0	0	1	2	9	9	9	9	10	49		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	0	0	0	14	8	6	28		

100th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19			
122mmHow	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
45mmAT	42	42	42	62	62	62	62	62	62	42	42	42	42	42	42			
50mmtr	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
76mmGun	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26			
82mmtr	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81			
ATR	214	214	214	226	225	225	225	225	225	213	213	213	213	213	212			
MG	88	88	88	88	88	88	88	88	88	88	88	88	88	88	87			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		2	
MG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		1	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	

107th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	57	57	57	57	57	57	57	57	53	48	47	14	13	13	13			
122mmHow	5	5	6	7	8	8	8	8	8	8	8	8	8	8	8			
37mmAA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
45mmAT	39	39	39	39	39	39	39	39	39	39	39	37	37	37	37			
50mmmr	65	65	63	61	59	57	57	56	55	54	53	49	46	43	40			
76mmGun	33	33	33	33	33	32	32	32	32	32	32	33	33	33	33			
82mmmr	80	80	80	80	80	80	80	79	78	77	75	68	67	66	66			
AA MG	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
ATR	403	403	402	401	398	394	394	389	381	371	365	245	247	244	241			
MG	76	76	75	74	73	72	72	71	69	67	65	57	56	55	55			
T-34	0	0	0	0	0	0	0	0	0	0	0	0	2	2	8			
T-70	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	2	3	1	3	1	0	0	10		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
50mmmr	0	0	1	1	1	1	0	1	1	1	1	3	2	2	2	17		
82mmmr	0	0	0	0	0	0	0	1	1	1	1	5	1	1	0	11		
AA MG	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
ATR	0	0	1	1	2	3	0	4	6	7	5	19	2	2	2	54		
MG	0	0	1	1	1	1	0	1	1	1	1	6	1	1	0	16		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	5		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
50mmmr	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	8		
76mmGun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
82mmmr	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3		
ATR	0	0	0	0	1	1	0	1	2	3	1	5	1	1	1	17		
MG	0	0	0	0	0	0	0	0	1	1	1	2	0	0	0	5		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3		
T-34	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	9		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
122mmHow	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3		
T-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		

111th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	21	21	21	21	20	20	20	20	20	20	20			
122mmHow	4	4	4	4	4	4	4	8	8	8	8	8	7	7	7			
37mmAA	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4			
45mmAT	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37			
50mmmr	56	56	56	56	56	56	56	56	50	50	50	50	50	50	50			
76mmGun	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30			
82mmmr	83	83	83	83	83	83	83	83	88	88	88	88	88	88	88			
ATR	212	212	212	212	212	212	212	214	215	215	215	215	219	219	219			
MG	94	94	94	94	94	94	94	80	86	86	86	86	91	91	91			
T-34	0	0	0	0	0	0	0	0	21	17	18	26	30	30	32			
T-70	0	0	0	0	0	0	0	0	5	5	4	4	4	4	4			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
122mmHow	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
50mmmr	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6		
76mmGun	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3		
82mmmr	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
ATR	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20		
MG	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	14		
T-34	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5		
T-70	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	20	3	0	0	0	0	0	23		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	22	23	0	0	0	0	0	45		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
122mmHow	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4		
ATR	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4		
MG	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5		
T-34	0	0	0	0	0	0	0	0	0	0	1	8	4	0	2	15		

13th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmmtr	23	23	23	23	23	23	23	23	23	22	21	20	20	20	19			
122mmHow	12	12	12	12	12	12	12	12	11	27	27	27	27	10	10			
45mmAT	47	47	47	47	47	47	47	47	46	44	47	45	45	44	42			
50mmmmtr	54	54	54	54	54	54	54	54	52	49	48	46	46	45	44			
76mmGun	36	36	36	36	36	36	36	36	36	35	38	36	36	35	33			
82mmmmtr	72	72	72	72	72	72	72	72	70	67	65	63	62	61	59			
ATR	243	243	243	243	243	243	243	243	236	250	291	284	283	253	245			
MG	162	162	162	162	162	162	162	162	159	155	149	142	141	136	132			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	4		
122mmHow	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
45mmAT	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	6		
50mmmmtr	0	0	0	0	0	0	0	0	1	2	1	1	0	1	1	7		
76mmGun	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	5		
82mmmmtr	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	8		
ATR	0	0	0	0	0	0	0	0	5	8	4	5	1	4	6	33		
MG	0	0	0	0	0	0	0	0	2	3	4	5	1	4	3	22		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	3		
50mmmmtr	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	3		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2		
82mmmmtr	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	5		
ATR	0	0	0	0	0	0	0	0	2	3	1	2	0	1	2	11		
MG	0	0	0	0	0	0	0	0	1	1	2	2	0	1	1	8		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

15th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmtr	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	26		
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
37mmAA	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0		
45mmAT	48	48	48	48	48	48	45	44	44	43	43	43	43	43	43	42		
50mmmtr	14	14	18	17	14	14	13	12	12	12	12	12	12	12	12	12		
76mmGun	36	36	40	39	36	36	36	36	36	36	36	36	36	36	36	34		
82mmmtr	86	86	92	91	86	86	85	85	85	85	85	85	85	85	84	74		
AA MG	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
Armtpt	0	0	6	5	0	0	0	0	0	0	0	0	0	0	0	0		
ATR	252	252	386	371	331	316	303	291	290	288	286	286	285	282	225			
BA-64	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0		
KV-1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0		
MG	140	140	144	142	138	138	135	132	131	129	129	129	128	125	76			
MK-2/3	0	0	47	30	0	0	0	0	0	0	0	0	0	0	0	0		
SU-152	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0		
T-34	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0		
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
45mmAT	0	0	0	0	0	0	3	1	0	1	0	0	0	0	1	6		
50mmmtr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2		
76mmGun	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3		
82mmmtr	0	0	0	1	0	0	1	0	0	0	0	0	0	1	10	13		
Armtpt	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
ATR	0	0	19	15	17	15	13	12	1	2	2	0	1	3	57	157		
MG	0	0	0	2	1	0	3	3	1	2	0	0	1	3	49	65		
MK-2/3	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	9		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mmmtr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
MK-2/3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	2	11	0	0	0	0	0	0	0	0	0	0	0	13		
SU-152	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

161st RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	21	20	20	20	20	20	20	20	20	20	20			
122mmHow	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
45mmAT	38	38	38	38	1	35	35	35	35	35	35	35	35	35	35			
50mmmr	57	57	57	57	54	49	49	47	47	47	47	47	47	47	47			
76mmGun	27	27	27	27	44	43	27	27	27	27	27	27	27	27	27			
82mmmr	81	81	81	81	81	80	80	80	80	80	80	80	80	80	80			
Armtpt	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0			
ATR	214	214	214	238	235	208	208	207	207	207	207	207	207	207	207			
BA-64	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0			
MG	88	88	88	88	83	75	74	70	69	69	69	69	69	69	69			
T-34	0	0	0	41	36	0	0	0	0	0	0	0	0	0	0			
T-70	0	0	0	16	14	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		1	
45mmAT	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0		2	
50mmmr	0	0	0	0	2	4	0	1	0	0	0	0	0	0	0		7	
76mmGun	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0		4	
82mmmr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		1	
Armtpt	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		1	
ATR	0	0	0	0	2	3	0	1	0	0	0	0	0	0	0		6	
MG	0	0	0	0	4	6	1	3	1	0	0	0	0	0	0		15	
T-70	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0		2	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		1	
50mmmr	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0		3	
ATR	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0		2	
MG	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0		4	
T-34	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0		5	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0		16	
T-70	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0		8	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	

183d RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	21	21	21	21	21	19	18	16	15	14	13	13	13	13	13			
122mmHow	11	11	11	11	11	10	9	8	7	6	6	6	6	6	6			
45mmAT	46	46	46	46	45	41	34	30	26	24	23	23	23	23	23			
50mmtr	52	52	52	52	51	45	39	34	29	26	24	22	22	22	22			
76mmGun	34	34	33	32	32	29	26	23	20	18	17	17	17	17	17			
82mmtr	79	79	78	78	77	69	61	54	47	43	41	39	39	39	39			
ATR	98	98	98	97	96	86	75	64	56	51	49	48	48	48	48			
MG	73	73	73	73	72	65	59	53	47	43	38	37	37	37	37			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	6		
122mmHow	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	5		
45mmAT	0	0	0	0	1	3	5	3	3	1	1	0	0	0	0	17		
50mmtr	0	0	0	0	1	4	4	4	4	2	1	1	0	0	0	21		
76mmGun	0	0	1	1	0	2	2	2	2	1	1	0	0	0	0	12		
82mmtr	0	0	1	1	1	4	4	5	5	3	1	1	0	0	0	26		
ATR	0	0	0	1	1	7	8	7	6	4	1	1	0	0	0	36		
MG	0	0	0	0	1	5	4	4	4	3	4	1	0	0	0	26		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2		
45mmAT	0	0	0	0	0	1	2	1	1	1	0	0	0	0	0	6		
50mmtr	0	0	0	0	0	2	2	1	1	1	1	1	0	0	0	9		
76mmGun	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	5		
82mmtr	0	0	0	0	0	2	2	2	2	1	1	1	0	0	0	11		
ATR	0	0	0	0	0	3	3	2	2	1	1	0	0	0	0	12		
MG	0	0	0	0	0	2	2	2	2	1	1	0	0	0	0	10		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

184th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21			
122mmHow	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
45mmAT	48	48	48	48	48	42	39	36	33	30	30	27	27	27	27			
50mmmr	57	57	57	57	57	52	49	46	43	41	40	38	38	38	38			
76mmGun	27	27	27	27	27	25	24	23	22	21	21	21	31	31	31			
82mmmr	85	85	85	85	85	74	68	62	56	50	49	43	43	43	43			
ATR	214	214	214	214	214	187	173	159	168	154	150	113	123	123	123			
BM-13	0	0	0	0	0	0	0	0	24	24	24	0	0	0	0			
MG	88	88	88	88	88	81	77	74	85	82	79	63	63	63	63			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	4	2	2	2	2	0	2	0	0	0	14		
50mmmr	0	0	0	0	0	4	2	2	2	1	1	1	0	0	0	13		
76mmGun	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	5		
82mmmr	0	0	0	0	0	8	4	4	4	4	1	4	0	0	0	29		
ATR	0	0	0	0	0	20	10	10	10	10	3	10	0	0	0	73		
MG	0	0	0	0	0	5	3	2	2	2	1	2	0	0	0	17		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	2	1	1	1	1	0	1	0	0	0	7		
50mmmr	0	0	0	0	0	1	1	1	1	1	0	1	0	0	0	6		
76mmGun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
82mmmr	0	0	0	0	0	3	2	2	2	2	0	2	0	0	0	13		
ATR	0	0	0	0	0	7	4	4	4	4	1	4	0	0	0	28		
MG	0	0	0	0	0	2	1	1	1	1	1	1	0	0	0	8		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

204th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21			
122mmHow	3	3	3	3	3	3	3	3	4	5	6	7	8	8	8			
45mmAT	39	39	39	39	39	39	39	39	36	30	29	28	27	27	27			
50mmtr	57	57	57	57	57	57	57	57	53	46	45	44	43	43	43			
76mmGun	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23			
82mmtr	76	76	76	76	76	76	77	77	76	74	73	73	73	73	73			
ATR	214	214	214	214	214	214	214	214	208	196	194	192	190	190	190			
MG	88	88	88	88	88	88	88	88	86	83	82	82	82	82	82			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	2	5	1	1	1	0	0	10		
50mmtr	0	0	0	0	0	0	0	0	3	5	1	1	1	0	0	11		
82mmtr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3		
ATR	0	0	0	0	0	0	0	0	5	9	1	1	1	0	0	17		
MG	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	4		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
50mmtr	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3		
82mmtr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
ATR	0	0	0	0	0	0	0	0	1	3	1	1	1	0	0	7		
MG	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
122mmHow	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	4		
82mmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

206th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	48	48	48	48	48	48	48	48	48	68	68	68	68	68	68			
50mmmr	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
76mmGun	32	32	32	55	54	53	52	51	51	51	51	51	51	51	51			
82mmmr	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81			
ATR	295	295	295	318	317	316	315	314	314	326	326	325	325	325	324			
MG	88	88	88	88	88	88	88	88	88	88	88	88	88	88	87			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2		
ATR	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	5		
MG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	3		
ATR	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

213th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	23	23	23	23	22	21	20	20	19	19	19	19	19	19	19			
122mmHow	12	12	12	12	12	12	12	12	10	10	10	10	10	10	10			
37mmAA	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0			
45mmAT	45	45	44	43	42	41	39	39	39	39	39	39	38	38	38			
50mmmr	45	45	40	35	30	25	19	19	19	19	19	19	19	19	19			
76mmGun	34	36	34	34	33	32	31	31	31	31	31	31	31	31	31			
82mmmr	80	87	77	74	71	68	64	64	61	61	61	61	60	60	60			
ATR	218	239	209	200	191	182	173	173	170	170	170	170	170	170	170			
MG	138	144	131	124	116	108	100	100	97	97	95	95	95	95	95			
T-34	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0			
T-70	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
122mmHow	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
45mmAT	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2		
50mmmr	0	0	1	2	2	2	2	0	0	0	0	0	0	0	0	9		
76mmGun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
82mmmr	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	6		
ATR	0	0	3	3	3	3	3	0	1	0	0	0	0	0	0	16		
MG	0	0	3	3	3	2	2	0	1	0	0	0	0	0	0	14		
T-34	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	3		
122mmHow	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
45mmAT	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	5		
50mmmr	0	0	4	3	3	3	4	0	0	0	0	0	0	0	0	17		
76mmGun	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	4		
82mmmr	0	0	2	2	2	2	3	0	2	0	0	0	1	0	0	14		
ATR	0	0	6	6	6	6	6	0	2	0	0	0	0	0	0	32		
MG	0	0	4	4	5	6	6	0	2	0	2	0	0	0	0	29		
T-34	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

219th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmmtr	21	21	21	21	21	21	20	20	20	20	20	20	20	20	20			
122mmHow	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
45mmAT	45	45	45	45	45	45	44	44	44	44	44	44	44	44	44			
50mmmmtr	68	68	68	68	68	68	64	60	57	54	51	51	51	51	51			
76mmGun	31	31	31	54	54	31	30	29	28	27	27	27	27	27	27			
82mmmmtr	82	82	82	82	82	82	80	80	79	77	77	77	77	77	77			
ATR	255	255	255	267	267	255	243	231	219	207	195	195	195	195	195			
MG	105	105	105	105	105	105	102	100	98	96	94	94	94	94	94			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
50mmmmtr	0	0	0	0	0	0	3	3	2	2	2	0	0	0	0	12		
76mmGun	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4		
82mmmmtr	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4		
ATR	0	0	0	0	0	0	9	9	9	9	9	0	0	0	0	45		
MG	0	0	0	0	0	0	2	1	1	1	1	0	0	0	0	6		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mmmmtr	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	5		
ATR	0	0	0	0	0	0	3	3	3	3	3	0	0	0	0	15		
MG	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	5		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

237th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	20	20	20	20	20	20	20	20	20	20	20			
122mmHow	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
45mmAT	71	71	68	45	44	44	44	44	44	44	44	44	44	44	44			
50mmmr	57	57	57	57	56	56	56	56	56	56	56	56	56	56	56			
76mmGun	52	51	48	45	41	28	28	28	28	28	28	28	28	28	28			
82mmmr	81	81	81	81	80	80	80	80	79	79	79	79	79	79	79			
ATR	246	246	243	224	221	212	211	211	210	210	209	209	209	209	209			
MG	88	88	88	88	87	87	87	87	86	86	86	86	86	86	86			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3		
50mmmr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
76mmGun	0	1	2	2	3	0	0	0	0	0	0	0	0	0	0	8		
82mmmr	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2		
ATR	0	0	3	1	3	1	1	0	1	0	1	0	0	0	0	11		
MG	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
76mmGun	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

270th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	21	21	21	21	21	21	21	21	17	16	16	16	16	16	16			
122mmHow	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
37mmAA	0	0	0	0	0	0	0	0	9	9	9	9	9	9	9			
45mmAT	40	40	40	40	40	39	39	39	37	37	37	37	37	37	37			
50mmtr	68	68	68	68	68	68	68	68	59	56	56	56	56	56	55			
76mmGun	32	32	32	32	32	32	32	32	34	34	34	34	34	34	34			
82mmtr	91	91	91	91	91	91	91	91	92	91	91	91	91	91	90			
Armtpt	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2			
ATR	226	226	226	226	226	226	226	226	219	213	213	212	212	212	207			
MG	72	72	72	72	72	72	72	72	58	54	54	53	53	53	53			
MK-2/3	0	0	0	0	0	0	0	0	16	17	14	13	14	15	14			
SU-122	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
T-34	0	0	0	0	0	0	0	0	2	2	1	4	4	4	4			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3		
45mmAT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
50mmtr	0	0	0	0	0	0	0	0	9	2	0	0	0	0	1	12		
76mmGun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
82mmtr	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	4		
ATR	0	0	0	0	0	0	0	0	21	4	0	1	0	0	2	28		
MG	0	0	0	0	0	0	0	0	12	3	0	1	0	0	0	16		
MK-2/3	0	0	0	0	0	0	0	0	5	2	3	2	0	0	1	13		
T-34	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
50mmtr	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4		
82mmtr	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
ATR	0	0	0	0	0	0	0	0	8	2	0	0	0	0	3	13		
MG	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6		
MK-2/3	0	0	0	0	0	0	0	0	10	0	0	1	0	0	0	11		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
MK-2/3	0	0	0	0	0	0	0	0	16	5	9	10	5	4	4	53		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
SU-122	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
T-34	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	0	0	0	0	0	0	0	3	0	2	1	1	0	7		

305th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	20	20	20	20	20	20	19	18	18	17	16	15	15	15	15			
122mmHow	12	12	12	12	12	12	12	11	10	10	9	9	9	9	9			
45mmAT	48	48	48	48	48	47	46	41	36	36	32	28	28	28	28			
50mmmr	56	56	56	56	56	55	52	45	38	38	31	25	25	26	27			
76mmGun	36	56	56	56	56	55	53	48	23	23	20	17	17	17	17			
82mmmr	83	83	83	83	83	82	78	67	56	56	46	36	36	36	36			
ATR	219	239	239	239	239	235	228	206	169	169	150	132	139	116	116			
BM-13	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0			
MG	68	68	68	68	68	67	66	59	52	52	46	40	47	33	33			
T-34	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0			
T-70	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	5		
122mmHow	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	3		
45mmAT	0	0	0	0	0	1	1	4	4	0	3	3	0	0	0	16		
50mmmr	0	0	0	0	0	1	2	5	5	0	5	4	0	0	0	22		
76mmGun	0	0	0	0	0	1	1	4	4	0	2	2	0	0	0	14		
82mmmr	0	0	0	0	0	1	3	8	8	0	7	7	0	0	0	34		
ATR	0	0	0	0	0	3	5	16	18	0	14	13	15	0	0	84		
MG	0	0	0	0	0	1	1	5	5	0	4	4	5	0	0	25		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	4		
50mmmr	0	0	0	0	0	0	1	2	2	0	2	2	0	0	0	9		
76mmGun	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	5		
82mmmr	0	0	0	0	0	0	1	3	3	0	3	3	0	0	0	13		
ATR	0	0	0	0	0	1	2	6	6	0	5	5	6	0	0	31		
MG	0	0	0	0	0	0	0	2	2	0	2	2	2	0	0	10		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	3	3	3	3	0	0	0	12		
T-70	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	4		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		
T-70	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mmmr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		

309th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	21	21	21	20	20	20	19	19	19	19	19			
122mmHow	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
37mmAA	0	0	0	9	9	9	9	9	9	0	0	0	0	0	0			
45mmAT	46	46	46	46	46	46	46	44	44	44	42	42	42	42	42			
50mmmr	57	57	57	57	57	57	57	54	54	54	52	52	52	52	52			
76mmGun	29	29	29	31	31	30	30	28	28	27	26	26	26	26	26			
82mmmr	81	81	81	87	86	87	86	82	82	76	73	73	73	73	73			
ATR	214	214	214	261	259	256	254	242	242	201	193	193	193	193	193			
BM-13	0	0	0	23	23	23	23	23	23	0	0	0	0	0	0			
MG	88	88	88	106	104	104	104	100	100	83	80	80	80	80	80			
T-34	0	0	0	41	33	24	20	16	0	0	0	0	0	0	0			
T-60	0	0	0	11	8	7	7	6	0	0	0	0	0	0	0			
T-70	0	0	0	8	8	7	6	5	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
45mmAT	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
50mmmr	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	3		
76mmGun	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	3		
82mmmr	0	0	0	0	1	0	0	3	0	0	2	0	0	0	0	6		
ATR	0	0	0	0	1	3	1	8	0	1	6	0	0	0	0	20		
MG	0	0	0	0	2	0	0	3	0	0	2	0	0	0	0	7		
T-34	0	0	0	0	0	11	6	6	0	0	0	0	0	0	0	23		
T-60	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3		
T-70	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
50mmmr	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
76mmGun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
82mmmr	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
ATR	0	0	0	0	1	0	1	4	0	0	2	0	0	0	0	8		
MG	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
T-34	0	0	0	0	8	1	1	1	0	0	0	0	0	0	0	11		
T-60	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	5	13	11	9	7	0	0	0	0	0	0	0	45		
T-60	0	0	0	4	4	5	6	7	0	0	0	0	0	0	0	26		
T-70	0	0	0	3	3	3	3	3	0	0	0	0	0	0	0	15		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	-23	0	0	0	0	0	0	-23		
T-60	0	0	0	0	0	0	1	0	-13	0	0	0	0	0	0	-12		
T-70	0	0	0	0	0	0	0	0	-8	0	0	0	0	0	0	-8		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	3	3	3	0	0	0	0	0	0	0	9		

36th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48			
50mmmr	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
76mmGun	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35			
82mmmr	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92			
AA MG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
ATR	323	254	253	242	242	242	242	242	242	242	242	242	242	242	242			
MG	139	139	139	139	139	139	139	139	139	139	139	139	139	139	139			
T-34	0	25	20	0	0	0	0	0	0	0	0	0	0	0	0			
T-70	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		1	
T-34	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0		5	
T-70	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0		2	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	

375th RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	24	23	18	13	13	13	13	13	7	7	6	6	6	6	6			
122mmGun	18	17	16	16	0	0	0	0	0	0	0	0	0	0	0			
122mmHow	8	8	7	6	6	6	6	6	6	6	6	6	6	6	6			
152mmGun	18	18	18	18	0	0	0	0	0	0	0	0	0	0	0			
37mmAA	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0			
45mmAT	65	70	56	37	37	37	28	28	12	12	21	21	21	21	21			
50mmtr	54	52	42	30	30	30	30	30	15	15	13	13	13	13	13			
76mmGun	59	57	46	34	34	34	30	30	21	12	11	11	11	11	11			
82mmtr	91	88	72	52	52	52	47	47	6	6	4	4	4	4	4			
Armtpt	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0			
ATR	493	470	393	303	269	269	215	215	28	26	8	8	8	8	8			
BM-13	24	23	22	22	22	22	0	0	0	0	0	0	0	0	0			
Flame	18	18	14	10	10	10	10	10	0	0	0	0	0	0	0			
MG	142	138	114	86	86	86	68	68	15	15	10	10	10	10	10			
T-34	46	41	46	46	40	32	0	0	0	0	0	0	0	0	0			
T-70	5	5	5	6	6	6	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	1	5	5	0	0	0	0	6	0	1	0	0	0	0	18		
122mmGun	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2		
122mmHow	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2		
45mmAT	0	3	14	19	0	0	0	0	6	0	1	0	0	0	0	43		
50mmtr	0	2	10	12	0	0	0	0	15	0	2	0	0	0	0	41		
76mmGun	0	2	11	12	0	0	0	0	9	0	1	0	0	0	0	35		
82mmtr	0	3	16	19	0	0	0	0	39	0	2	0	0	0	0	79		
ATR	0	14	77	90	0	0	0	0	187	0	18	0	0	0	0	386		
BM-13	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2		
Flame	0	0	4	4	0	0	0	0	10	0	0	0	0	0	0	18		
MG	0	4	24	28	0	0	0	0	53	0	5	0	0	0	0	114		
T-34	0	1	0	0	3	3	0	0	0	0	0	0	0	0	0	7		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
82mmtr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
ATR	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
T-34	0	4	0	0	3	5	0	0	0	0	0	0	0	0	0	12		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3		
T-70	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	4		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		

42d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	23	23	23	23	23	23	23	23	23	23	22	21	20	20	20			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	11	11	11	11			
45mmAT	47	47	47	47	47	47	47	47	47	46	45	44	43	42	42			
50mmmr	54	54	54	54	54	54	54	54	54	53	52	51	50	49	48			
76mmGun	36	36	36	36	36	36	36	36	36	34	32	32	32	32	32			
82mmmr	72	72	72	72	72	72	72	72	72	71	69	68	66	65	64			
ATR	242	242	242	242	242	242	242	242	242	240	234	228	223	218	215			
MG	162	162	162	162	162	162	162	162	162	160	156	153	149	146	144			

DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmmr	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3
122mmHow	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
45mmAT	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	5
50mmmr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	6
76mmGun	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3
82mmmr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	6
ATR	0	0	0	0	0	0	0	0	0	1	4	4	4	4	2	19
MG	0	0	0	0	0	0	0	0	0	1	3	2	3	2	1	12

DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
76mmGun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
82mmmr	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
ATR	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1	8
MG	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	6

IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

52d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	24	20	16	12	8	4	3	3	3	3	3	3	3	3	3			
122mmHow	8	8	7	6	5	4	4	4	4	4	4	4	4	4	4			
45mmAT	53	33	43	33	18	8	5	2	2	2	2	2	2	2	2			
50mmmr	54	45	35	25	15	5	4	3	3	3	3	3	3	3	3			
76mmGun	55	30	57	47	34	25	25	15	15	15	15	15	15	15	15			
82mmmr	85	74	61	48	35	22	22	22	22	22	22	22	22	22	22			
ATR	432	330	297	226	158	87	85	41	39	39	39	39	39	39	39			
BA-64	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
BM-13	24	23	0	0	0	0	0	0	0	0	0	0	0	0	0			
Flame	18	18	14	10	6	2	2	2	2	2	2	2	2	2	2			
M-3	39	9	9	9	9	0	0	0	0	0	0	0	0	0	0			
MG	149	129	91	67	43	19	18	17	16	16	16	16	16	16	16			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	4	4	4	4	4	0	0	0	0	0	0	0	0	0	20		
122mmHow	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4		
45mmAT	0	20	10	10	10	10	3	1	0	0	0	0	0	0	0	64		
50mmmr	0	9	10	10	10	10	1	1	0	0	0	0	0	0	0	51		
76mmGun	0	24	9	8	8	9	0	0	0	0	0	0	0	0	0	58		
82mmmr	0	11	13	13	13	13	0	0	0	0	0	0	0	0	0	63		
ATR	0	98	67	66	67	65	2	2	2	0	0	0	0	0	0	369		
BA-64	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Flame	0	0	4	4	4	4	0	0	0	0	0	0	0	0	0	16		
M-3	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25		
MG	0	20	24	24	24	24	1	1	1	0	0	0	0	0	0	119		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	1	2	2	2	0	0	0	0	0	0	0	0	0	0	7		
ATR	0	2	2	2	1	1	0	0	0	0	0	0	0	0	0	8		
BM-13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
M-3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6		
76mmGun	0	1	2	4	0	6	6	0	0	0	0	0	0	0	0	19		
BM-13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
M-3	0	5	5	5	5	0	0	0	0	0	0	0	0	0	0	20		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	-3		
																0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		

66th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	24	24	24	24	24	24	24	24	23	22	20	20	19	19	19			
122mmHow	12	12	12	12	12	12	12	12	28	10	9	9	9	9	9			
45mmAT	48	48	48	48	48	48	48	48	48	48	48	48	36	36	36			
50mmmr	56	56	56	56	56	56	56	55	53	50	46	46	44	44	44			
76mmGun	36	36	36	36	36	36	36	36	35	34	32	32	28	28	28			
82mmmr	83	83	83	83	83	83	83	82	79	75	69	69	65	65	65			
ATR	219	219	219	219	219	219	219	218	232	192	175	175	171	171	171			
MG	163	163	163	163	163	163	163	162	155	146	135	135	127	127	127			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	4		
122mmHow	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12		
50mmmr	0	0	0	0	0	0	0	1	1	2	3	0	1	0	0	8		
76mmGun	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	6		
82mmmr	0	0	0	0	0	0	0	1	2	3	4	0	3	0	0	13		
ATR	0	0	0	0	0	0	0	1	8	11	12	0	3	0	0	35		
MG	0	0	0	0	0	0	0	1	5	7	8	0	6	0	0	27		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
50mmmr	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	4		
76mmGun	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2		
82mmmr	0	0	0	0	0	0	0	0	1	1	2	0	1	0	0	5		
ATR	0	0	0	0	0	0	0	0	3	4	5	0	1	0	0	13		
MG	0	0	0	0	0	0	0	0	2	2	3	0	2	0	0	9		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

67th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	25	21	16	16	14	10	9	9	9	9	9	9	9	9	9			
122mmHow	11	9	6	6	5	5	5	5	5	5	5	5	5	5	5			
45mmAT	36	22	8	8	3	3	3	3	4	5	6	7	8	9	9			
50mmmr	44	27	10	10	3	3	3	4	5	5	5	5	5	5	5			
76mmGun	63	35	24	23	9	19	19	15	15	15	15	15	15	15	15			
82mmmr	84	57	29	29	17	18	19	19	19	19	19	19	19	19	19			
Armtpt	3	3	1	1	1	1	1	0	0	0	0	0	0	0	0			
ATR	393	233	103	89	45	46	70	70	47	47	47	70	70	70	70			
BA-64	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0			
BM-13	0	0	0	0	0	0	24	24	0	0	0	24	24	24	24			
Flame	9	5	1	1	1	1	1	1	1	1	1	1	1	1	1			
M-3	39	6	6	0	0	0	0	0	0	0	0	0	0	0	0			
MG	137	90	43	43	22	10	21	22	9	9	9	23	23	23	23			
SU-122	12	12	4	2	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	4	5	0	2	4	1	0	0	0	0	0	0	0	0	16		
122mmHow	0	2	3	0	1	0	0	0	0	0	0	0	0	0	0	6		
45mmAT	0	14	14	0	5	0	0	0	0	0	0	0	0	0	0	33		
50mmmr	0	17	17	0	7	0	0	0	0	0	0	0	0	0	0	41		
76mmGun	0	28	11	0	3	0	0	0	0	0	0	0	0	0	0	42		
82mmmr	0	27	28	0	12	0	0	0	0	0	0	0	0	0	0	67		
Armtpt	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
ATR	0	158	130	12	44	0	0	0	0	0	0	0	0	0	0	344		
BA-64	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Flame	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8		
M-3	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28		
MG	0	47	47	0	21	11	3	0	0	0	0	0	0	0	0	129		
SU-122	0	0	8	1	1	0	0	0	0	0	0	0	0	0	0	10		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
ATR	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
M-3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
SU-122	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	6		
50mmmr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2		
82mmmr	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
ATR	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
MG	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2		

71st Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
AA MG	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
120mmtr	60	55	53	53	53	53	53	52	52	51	51	51	18	18	18			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	32	68	42	42	42	42	41	42	43	44	45	47	47	47	47			
50mmtr	55	43	28	28	28	27	25	24	22	20	20	20	20	20	20			
76mmGun	76	67	45	45	45	45	29	30	31	32	33	34	34	34	34			
82mmtr	85	80	73	73	73	72	71	71	69	67	67	67	67	67	67			
ATR	445	403	351	350	349	345	278	271	253	232	232	230	197	197	197			
BM-13	24	24	48	48	48	48	0	0	0	0	0	0	0	0	0			
MG	126	106	94	93	93	91	60	58	53	47	47	46	46	46	46			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	5	2	0	0	0	0	1	1	1	0	0	0	0	0	10		
45mmAT	0	4	6	0	0	0	1	0	0	0	0	0	0	0	0	11		
50mmtr	0	12	15	0	0	1	2	1	2	2	0	0	0	0	0	35		
76mmGun	0	29	2	0	0	0	0	0	0	0	0	0	0	0	0	31		
82mmtr	0	5	7	0	0	1	1	0	2	2	0	0	0	0	0	18		
ATR	0	74	55	1	1	4	5	7	18	21	0	2	0	0	0	188		
MG	0	20	26	1	0	2	3	2	5	6	0	1	0	0	0	66		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MG	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	16		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	1	1	1	0	2	0	0	0	5		
76mmGun	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	4		

72d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	23	20	17	14	14	14	14	14	13	12	12	12	12	12	12			
122mmHow	12	11	10	10	10	10	10	10	10	11	11	11	11	11	11			
45mmAT	45	37	29	21	21	21	20	21	22	24	24	24	23	23	23			
50mmmr	54	41	28	15	15	15	15	15	14	13	14	15	17	17	17			
76mmGun	36	33	31	29	29	29	29	29	29	29	30	31	32	32	32			
82mmmr	74	59	44	30	30	30	30	34	39	44	43	42	41	41	41			
ATR	259	215	171	128	128	128	102	127	126	125	115	103	87	87	87			
MG	132	101	70	39	39	39	38	41	45	49	44	38	30	30	30			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	2	3	3	3	0	0	0	0	1	1	0	0	0	0	0	13		
122mmHow	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2		
45mmAT	1	8	8	8	0	0	1	0	0	0	0	0	1	0	0	27		
50mmmr	0	13	13	13	0	0	0	0	1	1	0	0	0	0	0	41		
76mmGun	0	3	2	2	0	0	0	0	0	0	0	0	0	0	0	7		
82mmmr	0	15	15	14	0	0	0	0	0	0	1	1	1	0	0	47		
ATR	0	44	44	43	0	0	1	0	1	1	10	12	16	0	0	172		
MG	1	31	31	31	0	0	1	0	0	0	5	6	8	0	0	114		
T-60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
82mmmr	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
122mmHow	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	4		
50mmmr	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4		
76mmGun	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3		
82mmmr	0	0	0	0	0	0	0	4	5	5	0	0	0	0	0	14		
MG	0	0	0	0	0	0	0	3	4	4	0	0	0	0	0	11		

73d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	20	20	19	16	15	15	14	14	14	14	14	15	16	16	16			
122mmHow	11	11	11	10	10	10	10	10	10	10	10	11	11	11	11			
37mmAA	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0			
45mmAT	44	56	39	34	30	28	24	22	22	22	22	23	16	16	16			
50mmmr	42	46	36	24	20	21	14	12	12	12	12	13	14	14	14			
76mmGun	33	50	48	42	42	40	35	34	34	34	34	34	22	22	19			
82mmmr	65	71	60	50	47	50	42	41	41	41	41	41	41	41	37			
Armtpt	0	3	1	1	1	2	0	0	0	0	0	0	0	0	0			
ATR	167	270	226	166	154	171	137	133	286	286	286	286	235	235	234			
BA-64	0	0	5	3	3	0	0	0	0	0	0	0	0	0	0			
BM-13	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0			
KV-1	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0			
MG	141	159	136	86	74	71	56	52	52	52	52	52	52	52	34			
MK-2/3	0	47	0	0	0	32	0	0	0	0	0	0	0	0	0			
SU-122	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0			
T-34	0	3	4	4	4	3	0	0	0	0	0	0	0	0	0			
T-70	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	1	3	1	0	1	0	0	0	0	0	0	0	0	6		
122mmHow	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	16	13	4	2	4	2	0	0	0	0	0	0	0	41		
50mmmr	0	0	6	12	4	2	4	2	0	0	0	0	0	0	0	30		
76mmGun	0	0	5	4	2	1	2	1	0	0	0	0	0	0	3	18		
82mmmr	0	0	5	10	3	2	3	1	0	0	0	0	0	0	4	28		
Armtpt	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
ATR	0	0	19	35	12	6	11	4	0	0	0	0	0	0	1	88		
BA-64	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
KV-1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5		
MG	0	0	19	36	12	6	12	4	0	0	0	0	0	0	18	107		
SU-122	0	0	8	1	1	0	0	0	0	0	0	0	0	0	0	10		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
76mmGun	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5		
ATR	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3		
KV-1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
SU-122	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
T-34	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	8	9	1	1	1	1	1	1	1	1	1	0	0	0	26		
76mmGun	0	8	10	12	10	8	8	8	8	8	8	8	0	0	0	96		
KV-1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
MK-2/3	0	2	0	0	0	9	0	0	0	0	0	0	0	0	0	11		
SU-122	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3		
T-60	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	6		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2		
122mmHow	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
45mmAT	0	0	0	8	0	0	0	0	0	0	0	1	1	0	0	10		
50mmmr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2		
MK-2/3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2		

78th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	19	13	12	11	7	3	3	3	4	4	5	5	5	6	7			
122mmHow	11	7	7	7	6	5	5	5	5	5	5	5	5	6	7			
37mmAA	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0			
45mmAT	43	27	21	19	14	9	9	9	9	9	10	10	10	10	11			
50mmtr	54	40	35	30	24	13	10	10	10	10	10	10	10	10	10			
76mmGun	30	20	19	19	21	17	17	17	17	18	19	19	19	19	19			
82mmtr	81	57	49	44	36	19	16	16	16	16	16	18	20	22	24			
AA MG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
Armtpt	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0			
ATR	278	164	94	87	96	60	60	60	60	60	61	64	68	72	76			
BA-64	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0			
KV-1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0			
MG	137	95	57	48	42	31	28	28	27	27	27	27	26	26	26			
MK-2/3	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0			
SU-152	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0			
T-34	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	6	1	1	4	4	0	0	0	0	0	0	0	0	0	16		
122mmHow	0	4	0	0	1	1	0	0	0	0	0	0	0	0	0	6		
45mmAT	0	16	6	2	5	5	0	0	0	0	0	0	0	0	0	34		
50mmtr	0	14	5	5	9	8	3	0	0	0	0	0	0	0	0	44		
76mmGun	0	10	1	0	1	1	0	0	1	0	0	0	0	0	0	14		
82mmtr	0	24	8	5	13	12	3	0	0	0	0	0	0	0	0	65		
ATR	0	114	22	7	14	13	0	0	0	0	0	0	0	0	0	170		
MG	0	42	38	9	9	8	3	0	1	0	0	0	1	0	0	111		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-2/3	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11		
SU-152	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	4		
122mmHow	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		
45mmAT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2		
76mmGun	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2		
82mmtr	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	8		
ATR	0	0	0	0	0	0	0	0	0	0	1	3	4	4	4	16		

81st Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	60	60	39	36	34	32	30	10	10	10	10	10	10	10	10			
122mmHow	12	12	10	8	6	4	2	1	1	1	1	1	1	1	1			
45mmAT	41	41	55	44	38	32	29	10	20	10	9	9	9	9	9			
50mmmr	55	55	47	39	31	23	15	7	7	7	5	5	5	5	5			
76mmGun	36	36	55	36	31	26	22	7	7	7	6	6	6	6	6			
82mmmr	87	87	74	61	48	36	24	12	12	12	9	9	9	9	9			
ATR	417	440	348	305	271	237	203	114	114	114	105	105	105	105	105			
BA-64	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0			
BM-13	24	48	24	24	24	24	24	0	0	0	0	0	0	0	0			
KV-1	0	22	0	11	6	0	0	0	0	0	0	0	0	0	0			
MG	153	167	131	109	87	65	43	27	27	27	4	4	4	4	4			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	10	3	2	2	2	2	0	0	0	0	0	0	0	21		
122mmHow	0	0	2	2	2	2	2	1	0	0	0	0	0	0	0	11		
45mmAT	0	0	6	9	6	6	5	16	0	0	1	0	0	0	0	49		
50mmmr	0	0	8	8	8	8	8	8	0	0	2	0	0	0	0	50		
76mmGun	0	0	5	16	5	5	5	13	0	0	1	0	0	0	0	50		
82mmmr	0	0	13	13	13	12	12	12	0	0	3	0	0	0	0	78		
ATR	0	0	43	39	34	34	34	40	0	0	9	0	0	0	0	233		
BA-64	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
KV-1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	8		
MG	0	0	22	22	22	22	22	22	0	0	3	0	0	0	0	135		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11		
45mmAT	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	5		
76mmGun	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	5		
ATR	0	0	5	4	0	0	0	4	0	0	0	0	0	0	0	13		
KV-1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
KV-1	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2		
76mmGun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		

89th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	24	24	24	24	24	24	24	24	24	24	24	24	18	20	22			
122mmHow	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
45mmAT	32	32	32	32	32	32	32	30	28	26	26	26	20	19	18			
50mmtr	64	64	64	64	64	52	64	60	56	52	52	52	5	11	17			
76mmGun	31	31	31	31	31	31	31	31	30	29	30	31	26	26	25			
82mmtr	86	86	86	86	86	86	86	85	84	82	82	82	6	19	32			
AA MG	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0			
ATR	283	283	283	283	283	283	282	274	267	260	260	260	154	150	147			
MG	148	148	148	148	148	148	150	146	142	139	139	139	50	43	37			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2		
45mmAT	0	0	0	0	0	0	0	2	2	2	0	0	6	1	1	14		
50mmtr	0	0	0	0	0	0	0	4	4	4	0	0	35	0	0	47		
76mmGun	0	0	0	0	0	0	0	0	1	1	0	0	5	0	1	8		
82mmtr	0	0	0	0	0	0	0	1	1	2	0	0	50	0	0	54		
AA MG	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2		
ATR	0	0	0	0	0	0	1	8	7	7	0	0	106	4	3	136		
MG	0	0	0	0	0	0	0	4	4	3	0	0	89	7	6	113		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4		
50mmtr	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12		
82mmtr	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
76mmGun	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2		
MG	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4		
50mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	12		
82mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	26		

90th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	24	22	20	18	16	14	1	1	1	1	1	1	1	1	1			
122mmHow	6	6	6	5	22	4	1	1	1	1	2	3	3	3	3			
45mmAT	33	31	28	25	22	19	3	3	3	3	3	4	4	4	4			
50mmtr	54	50	46	41	36	31	4	3	2	2	2	2	2	3	3			
76mmGun	33	31	29	27	25	23	11	11	12	12	12	12	12	12	12			
82mmtr	85	79	73	66	59	52	13	10	7	8	9	10	10	10	10			
ATR	273	255	237	217	224	180	70	52	35	35	38	40	40	40	40			
MG	145	133	121	107	95	83	9	4	0	0	2	4	6	8	8			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	2	2	2	2	2	13	0	0	0	0	0	0	0	0	23		
122mmHow	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4		
45mmAT	0	2	3	3	3	3	16	0	0	0	0	0	0	0	0	30		
50mmtr	0	4	4	5	5	5	27	1	1	0	0	0	0	0	0	52		
76mmGun	0	2	2	2	2	2	12	0	0	0	0	0	0	0	0	22		
82mmtr	0	6	6	7	7	7	39	3	3	0	0	0	0	0	0	78		
ATR	0	18	18	20	18	19	110	18	17	0	0	0	0	0	0	238		
MG	0	12	12	14	12	12	74	5	4	0	0	0	0	0	0	145		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
122mmHow	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
50mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
76mmGun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
82mmtr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3		
ATR	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5		
MG	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	8		

92d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	24	24	24	24	22	17	11	8	6	4	2	0	0	0	0			
122mmHow	12	12	12	12	11	8	4	3	2	2	2	2	1	1	1			
37mmAA	0	0	0	0	0	0	0	9	9	9	0	0	0	0	0			
45mmAT	48	48	48	48	44	30	16	13	10	7	4	2	2	3	3			
50mmmr	57	57	57	56	54	47	39	32	25	18	11	4	3	2	2			
76mmGun	36	36	36	36	33	25	17	17	14	11	5	3	4	6	6			
82mmmr	90	90	90	85	79	62	44	42	35	28	16	10	10	11	11			
AA MG	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
Armtpt	0	0	0	0	0	0	0	3	3	3	0	0	0	0	0			
ATR	307	307	307	299	289	257	225	204	163	145	84	43	27	34	34			
BM-13	0	0	0	0	0	0	0	0	0	24	24	24	0	0	0			
MG	194	194	194	194	186	163	140	116	89	76	46	20	8	10	10			
T-34	0	0	0	0	0	0	0	7	13	13	0	0	0	0	0			
T-70	0	0	0	0	0	0	0	5	3	3	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	2	5	6	3	2	2	2	2	0	0	0	24		
122mmHow	0	0	0	0	1	3	4	1	1	0	0	0	1	0	0	11		
45mmAT	0	0	0	0	4	14	14	3	3	3	3	2	0	0	0	46		
50mmmr	0	0	0	1	2	7	8	7	7	7	7	7	1	1	0	55		
76mmGun	0	0	0	0	3	8	8	4	3	3	3	2	0	0	0	34		
82mmmr	0	0	0	5	6	17	18	7	7	7	7	6	0	0	0	80		
ATR	0	0	0	8	10	32	32	42	41	41	41	41	0	0	0	288		
MG	0	0	0	0	8	23	23	27	27	27	26	0	0	0	0	188		
T-34	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4		
T-60	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3		
MG	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
T-34	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9		
T-70	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3		
82mmmr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
ATR	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	14		
MG	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4		
T-34	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6		

93d Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmtr	24	24	24	24	24	24	24	21	21	17	16	13	10	10	6			
122mmHow	12	12	12	12	12	12	12	11	11	9	9	8	7	7	7			
45mmAT	48	48	46	46	46	46	45	39	38	30	27	21	15	15	14			
50mmtr	69	69	69	69	69	69	67	55	53	37	31	20	9	9	14			
76mmGun	36	36	32	32	32	33	33	29	29	24	22	18	14	14	4			
82mmtr	85	85	81	81	81	81	79	68	66	52	48	37	26	26	19			
AA MG	6	6	6	6	6	6	6	6	6	4	4	4	4	4	0			
ATR	284	284	284	283	282	282	268	234	220	172	170	136	102	102	123			
MG	173	173	170	146	122	110	105	92	86	68	43	30	17	17	12			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmtr	0	0	0	0	0	0	0	3	0	4	1	3	3	0	4	18		
122mmHow	0	0	0	0	0	0	0	1	0	2	0	1	1	0	4	9		
45mmAT	0	0	2	0	0	0	1	6	1	8	3	6	6	0	1	34		
50mmtr	0	0	0	0	0	0	2	2	2	16	6	11	0	0	0	39		
76mmGun	0	0	4	0	0	0	0	4	0	5	2	4	4	0	10	33		
82mmtr	0	0	4	0	0	0	2	11	2	14	4	11	11	0	7	66		
AA MG	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2		
ATR	0	0	0	1	1	0	14	34	14	48	2	34	34	0	0	182		
MG	0	0	3	24	24	12	5	13	6	18	25	13	13	0	5	161		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mmtr	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
50mmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5		
76mmGun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
ATR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21		

94th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	24	24	24	24	24	24	23	19	13	11	9	7	7	7	7			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	48	48	48	48	48	48	48	41	32	29	26	24	24	24	24			
50mmmr	58	58	58	56	54	52	50	46	41	39	37	36	36	36	36			
76mmGun	36	36	36	36	36	36	36	27	22	19	16	13	13	13	13			
82mmmr	85	85	85	83	81	79	76	68	60	59	52	45	45	45	45			
AA MG	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
ATR	279	279	279	260	251	231	211	205	179	172	166	160	160	160	160			
MG	173	173	173	167	161	155	149	137	117	116	107	99	99	99	99			
T-34	0	0	0	0	17	17	17	0	0	0	0	0	0	0	0			
T-70	0	0	0	0	4	4	4	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	1	4	6	2	2	2	0	0	0		17	
45mmAT	0	0	0	0	0	0	0	7	9	3	3	2	0	0	0		24	
50mmmr	0	0	0	2	2	2	2	4	5	2	2	1	0	0	0		22	
76mmGun	0	0	0	0	0	0	0	9	5	3	3	3	0	0	0		23	
82mmmr	0	0	0	2	2	2	3	8	8	1	7	7	0	0	0		40	
ATR	0	0	0	19	20	20	20	6	19	7	6	6	0	0	0		123	
MG	0	0	0	6	6	6	6	12	20	1	9	8	0	0	0		74	
T-34	0	0	0	0	3	0	0	14	0	0	0	0	0	0	0		17	
T-70	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0		3	
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0		3	
T-70	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		1	
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	

95th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmmtr	23	23	23	23	23	23	59	59	59	59	56	56	56	22	22			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	47	47	47	47	47	47	47	46	45	36	27	27	26	25	24			
50mmmmtr	54	54	54	54	54	54	54	52	50	35	20	19	18	17	15			
76mmGun	36	36	36	36	36	36	36	35	34	29	24	23	23	23	22			
82mmmmtr	72	72	72	72	72	72	72	72	72	68	64	64	64	64	63			
ATR	242	242	242	242	242	242	278	273	268	223	178	176	173	148	142			
MG	162	162	162	162	162	162	162	159	156	128	100	98	96	94	90			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		
45mmAT	0	0	0	0	0	0	0	1	1	7	7	0	1	1	1	19		
50mmmmtr	0	0	0	0	0	0	0	1	1	11	11	1	1	1	1	28		
76mmGun	0	0	0	0	0	0	0	1	1	4	4	1	0	0	1	12		
82mmmmtr	0	0	0	0	0	0	0	0	0	3	3	0	0	0	1	7		
ATR	0	0	0	0	0	0	0	4	3	33	33	1	2	2	4	82		
MG	0	0	0	0	0	0	0	2	2	21	21	1	1	1	3	52		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
45mmAT	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4		
50mmmmtr	0	0	0	0	0	0	0	1	1	4	4	0	0	0	1	11		
76mmGun	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2		
82mmmmtr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2		
ATR	0	0	0	0	0	0	0	1	2	12	12	1	1	1	2	32		
MG	0	0	0	0	0	0	0	1	1	7	7	1	1	1	1	20		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

97th Gds RD

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21			
122mmHow	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
45mmAT	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48			
50mmmr	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
76mmGun	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36			
82mmmr	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67			
ATR	263	263	263	263	263	263	263	263	263	263	262	284	284	261	261			
BM-13	0	0	0	0	0	0	0	0	0	0	0	24	24	0	0			
MG	163	163	163	163	163	163	163	163	163	163	177	177	163	163				
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ATR	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

10th TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	42	42	42	42	42	40	40	40	40	40	40	40	40	40	40			
37mmAA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25			
45mmAT	32	32	32	32	32	17	15	14	14	14	14	14	14	16	16			
50mmmr	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
76mmGun	34	34	34	34	34	28	27	27	27	27	27	27	27	31	27			
82mmmr	47	47	47	47	47	45	45	45	45	45	45	44	43	42	45			
Armtpt	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
ATR	189	189	189	189	189	151	148	145	142	139	136	130	124	119	114			
BA-64	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28			
KV-1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1			
MG	117	117	117	117	117	93	91	89	87	85	83	78	73	68	64			
SU-152	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
T-34	99	99	99	99	99	99	98	97	92	88	84	63	46	28	28			
T-70	64	64	64	64	64	64	64	64	61	58	55	45	37	29	29			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	10	2	1	0	0	0	0	0	0	0	13		
76mmGun	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3		
82mmmr	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3		
ATR	0	0	0	0	0	23	2	2	2	2	2	4	4	3	3	47		
MG	0	0	0	0	0	13	1	1	1	1	1	3	3	3	2	29		
T-34	0	0	0	0	0	0	1	1	3	3	3	15	12	13	0	51		
T-70	0	0	0	0	0	0	0	0	2	2	2	7	6	6	0	25		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5		
76mmGun	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4		
82mmmr	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2		
ATR	0	0	0	0	0	15	1	1	1	1	1	2	2	2	2	28		
MG	0	0	0	0	0	11	1	1	1	1	1	2	2	2	2	24		
T-34	0	0	0	0	0	0	0	0	2	1	1	6	5	5	0	20		
T-70	0	0	0	0	0	0	0	0	1	1	1	3	2	2	0	10		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
KV-1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4		

18th TC

DAY

ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
120mmtr	43	43	43	43	43	43	42	42	42	43	41	41	41	41	41	
37mmAA	25	25	25	25	25	25	25	25	24	24	24	24	24	24	24	
45mmAT	32	32	32	32	32	32	32	32	31	30	29	29	29	29	29	
76mmGun	24	24	24	24	24	24	24	24	23	22	21	21	21	21	21	
82mmtr	55	55	55	55	55	55	55	55	53	52	51	51	51	51	51	
ATR	189	189	189	189	189	189	189	210	202	195	188	188	188	188	163	
BA-64	32	32	32	32	32	21	29	31	28	28	28	28	28	26	26	
BM-13	0	0	0	0	0	0	0	24	24	20	20	20	20	18	0	
Bren	20	20	20	20	20	19	19	20	17	17	17	17	17	19	19	
MG	120	120	120	120	120	120	119	131	128	125	124	124	124	124	110	
MK-4	21	21	21	21	21	17	18	18	8	5	7	9	9	10	9	
T-34	91	91	91	91	91	46	50	68	26	34	36	40	44	49	44	
T-70	62	62	62	62	62	52	49	58	35	38	46	46	46	45	46	
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
37mmAA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
45mmAT	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
76mmGun	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
82mmtr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
ATR	0	0	0	0	0	0	0	1	6	5	5	0	0	0	1	18
BM-13	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
MG	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	7
MK-4	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
T-34	0	0	0	0	0	0	0	0	18	0	0	0	0	0	5	23
T-70	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmtr	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	3
82mmtr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
ATR	0	0	0	0	0	0	0	1	2	2	2	0	0	0	1	8
BA-64	0	0	0	0	0	11	0	0	3	0	0	0	0	2	0	16
BM-13	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4
Bren	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	4
MG	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
MK-4	0	0	0	0	0	4	0	1	5	3	0	0	0	0	1	14
T-34	0	0	0	0	0	45	0	2	27	0	0	0	0	0	6	80
T-70	0	0	0	0	0	10	4	0	17	0	0	0	0	1	4	36
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
BA-64	0	0	0	0	0	11	3	1	4	4	4	4	4	6	6	47
Bren	0	0	0	0	0	1	1	0	3	3	3	3	3	1	1	19
MK-4	0	0	0	0	0	4	3	3	7	10	8	6	6	5	6	58
T-34	0	0	0	0	0	45	41	23	47	39	37	33	29	24	24	342
T-70	0	0	0	0	0	10	13	4	19	16	8	8	8	9	8	103
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmtr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
BA-64	0	0	0	0	0	0	8	2	0	0	0	0	0	0	0	10
Bren	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3
MK-4	0	0	0	0	0	0	1	1	1	0	2	2	0	1	0	8
T-34	0	0	0	0	0	0	4	20	3	8	2	4	4	5	6	56
T-70	0	0	0	0	0	0	1	9	2	3	8	0	0	0	5	28

29th TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	42	42	42	42	42	42	42	42	39	39	39	39	39	39	39			
25mmAA	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3			
37mmAA	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
45mmAT	32	32	32	32	32	32	32	32	25	25	25	25	26	26	26			
76mmGun	33	33	33	33	32	32	32	32	28	28	28	28	29	29	29			
82mmmr	52	52	52	52	52	52	52	52	44	44	44	44	44	44	44			
Armtpt	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3			
ATR	189	189	189	189	189	189	212	212	187	187	187	187	187	187	187			
BA-10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
BA-64	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47			
BM-13	0	0	0	0	0	0	24	24	24	24	24	24	24	24	24			
KV-1	1	1	1	1	0	0	1	1	2	2	2	2	2	2	2			
MG	120	120	120	120	120	120	134	134	118	118	118	118	118	118	118			
SU-122	12	12	12	12	12	12	11	12	3	3	3	3	4	4	4			
SU-152	0	0	0	0	0	0	0	0	11	11	11	11	11	11	11			
T-34	130	130	130	130	124	123	122	123	20	31	33	40	39	42	32			
T-70	85	85	85	85	80	81	82	81	39	40	39	45	45	50	38			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3		
45mmAT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
76mmGun	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4		
82mmmr	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5		
ATR	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	25		
BA-64	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
MG	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16		
SU-122	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8		
T-34	0	0	0	0	0	0	0	0	60	0	0	0	0	0	3	63		
T-70	0	0	0	0	0	0	0	0	28	2	1	0	0	0	4	35		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6		
76mmGun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
82mmmr	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3		
KV-1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
SU-122	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	3		
T-34	0	0	0	0	6	1	1	1	45	0	0	0	1	0	7	62		
T-70	0	0	0	0	5	0	0	1	14	1	0	1	0	0	8	30		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	8		
KV-1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2		
SU-122	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	5		
SU-152	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	35		
T-34	0	0	0	0	6	7	8	7	50	39	37	30	31	28	35	278		
T-70	0	0	0	0	5	4	3	4	18	14	14	8	8	3	11	92		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
25mmAA	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
KV-1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
SU-122	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	3		
T-34	0	0	0	0	0	0	0	2	2	11	2	7	0	3	0	27		
T-70	0	0	0	0	0	1	1	0	0	4	0	7	0	5	0	18		

2d Gds TC

																DAY										
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18											
120mmtr	42	42	42	41	41	41	41	41	26	26	19	19	19	19	13											
37mmAA	25	25	25	25	25	25	25	25	25	25	24	24	24	24	24											
45mmAT	32	32	32	52	52	50	48	48	30	19	15	15	15	15	10											
76mmGun	48	48	48	42	42	42	42	42	26	26	12	12	12	12	8											
82mmtr	55	55	52	52	52	52	52	52	33	33	33	31	30	30	20											
ATR	201	201	182	189	189	189	189	212	142	135	113	113	112	112	83											
BA-64	28	28	28	28	28	28	28	27	17	17	13	13	13	13	9											
BM-13	0	0	0	0	0	0	0	22	20	20	19	19	17	17	18											
Bren	20	20	20	20	20	20	20	20	13	13	12	12	12	12	8											
MG	120	120	120	115	115	115	115	129	85	85	67	67	67	67	48											
MK-4	16	16	7	5	0	3	3	2	2	2	2	0	0	0	0											
T-34	99	99	86	102	94	80	84	86	47	45	33	40	45	45	17											
T-70	72	72	66	64	61	50	52	52	33	33	24	17	18	18	14											
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL										
120mmtr	0	0	0	1	0	0	0	0	7	0	4	0	0	0	2	14										
37mmAA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1										
45mmAT	0	0	0	0	0	2	2	0	12	0	2	0	0	0	2	20										
76mmGun	0	0	0	4	0	0	0	0	8	0	1	0	0	0	1	14										
82mmtr	0	0	2	0	0	0	0	0	9	0	0	0	1	0	3	15										
ATR	0	0	10	2	0	0	0	0	33	0	12	0	1	0	10	68										
BA-64	0	0	0	0	0	0	0	0	5	0	2	0	0	0	1	8										
BM-13	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1										
Bren	0	0	0	0	0	0	0	0	3	0	1	0	0	0	1	5										
MG	0	0	0	3	0	0	0	0	20	0	10	0	0	0	6	39										
MK-4	0	0	6	0	2	1	0	3	0	0	0	0	0	0	0	12										
T-34	0	0	8	0	2	3	0	0	15	1	6	1	0	0	6	42										
T-70	0	0	3	0	2	3	0	0	9	0	7	1	0	0	3	28										
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL										
45mmAT	0	0	0	0	0	0	0	0	6	0	2	0	0	0	3	11										
76mmGun	0	0	0	2	0	0	0	0	8	0	0	0	0	0	3	13										
82mmtr	0	0	1	0	0	0	0	0	10	0	0	2	0	0	7	20										
ATR	0	0	9	2	0	0	0	0	37	0	4	0	0	0	19	71										
BA-64	0	0	0	0	0	0	0	1	5	0	2	0	0	0	3	11										
BM-13	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	4										
Bren	0	0	0	0	0	0	0	0	4	0	0	0	0	0	3	7										
MG	0	0	0	2	0	0	0	0	24	0	8	0	0	0	13	47										
MK-4	0	0	3	2	3	4	0	2	1	0	0	2	0	0	0	17										
T-34	0	0	5	3	6	11	2	0	24	3	6	6	0	0	22	88										
T-70	0	0	3	2	1	8	0	0	10	1	2	6	0	0	3	36										
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL										
BA-64	0	0	0	0	0	0	0	1	6	0	0	0	0	0	0	7										
MK-4	5	5	8	10	13	9	9	7	7	0	0	0	0	0	0	73										
T-34	22	22	27	11	17	28	24	22	46	0	0	0	0	0	0	219										
T-70	3	3	6	8	9	17	15	15	25	0	0	0	0	0	0	101										
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL										
T-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL										
MK-4	0	0	0	0	0	8	0	4	1	0	0	0	0	0	0	13										
T-34	0	0	0	19	0	0	6	2	0	2	0	14	5	0	0	48										
T-70	0	0	0	0	0	0	2	0	0	1	0	0	1	0	2	6										

2d TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmmtr	38	38	38	38	38	38	36	36	36	36	36	36	36	38	38			
37mmAA	21	21	21	21	21	21	20	20	20	20	20	20	20	20	20			
45mmAT	28	28	28	28	28	26	24	24	24	24	24	24	25	23	24			
50mmmmtr	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
76mmGun	20	20	20	20	20	18	13	11	9	9	9	9	9	9	9			
82mmmmtr	46	46	46	46	46	40	29	25	21	19	19	19	19	19	14			
ATR	160	160	160	160	160	141	103	88	74	74	74	60	60	60	47			
MG	102	102	102	102	102	90	67	58	49	44	44	40	38	38	36			
MK-4	11	11	11	11	11	9	4	3	2	2	4	5	5	5	13			
T-34	70	70	70	70	70	49	35	28	21	22	24	23	36	34	34			
T-70	56	56	56	56	56	48	30	28	26	20	24	21	27	29	22			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	3		
76mmGun	0	0	0	0	0	1	3	1	1	0	0	0	0	0	0	6		
82mmmmtr	0	0	0	0	0	3	5	2	2	1	0	0	0	0	2	15		
ATR	0	0	0	0	0	6	13	5	5	0	0	4	0	0	4	37		
MG	0	0	0	0	0	4	7	3	3	1	0	2	1	0	0	21		
MK-4	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	5		
T-34	0	0	0	0	0	6	6	2	2	0	0	1	0	2	2	21		
T-70	0	0	0	0	0	3	7	2	2	2	0	0	0	0	1	17		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2		
37mmAA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	3		
76mmGun	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	5		
82mmmmtr	0	0	0	0	0	3	6	2	2	1	0	0	0	0	3	17		
ATR	0	0	0	0	0	13	25	10	9	0	0	10	0	0	9	76		
MG	0	0	0	0	0	8	16	6	6	4	0	2	1	0	2	45		
MK-4	0	0	0	0	0	1	4	1	1	0	0	0	0	0	0	7		
T-34	0	0	0	0	0	15	14	5	5	0	0	0	1	4	0	44		
T-70	0	0	0	0	0	5	11	4	4	4	0	3	0	0	6	37		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-4	2	2	2	2	2	3	4	5	6	6	4	3	3	3	0	47		
T-34	12	12	12	12	12	27	21	26	31	30	28	28	15	15	13	294		
T-70	7	7	7	7	7	12	23	23	23	27	23	26	20	18	24	254		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
MK-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmmtr	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2		
MK-4	0	0	0	0	0	0	3	0	0	0	2	1	0	0	3	9		
T-34	0	0	0	0	0	0	6	0	0	1	2	0	14	4	2	29		
T-70	0	0	0	0	0	0	0	4	4	0	4	0	6	2	0	20		

31st TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
37mmAA	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0			
45mmAT	0	0	0	20	20	19	12	12	12	12	12	12	0	0	0			
76mmGun	12	12	12	16	15	29	28	26	25	25	24	25	2	2	2			
82mmtr	18	18	18	24	21	6	5	4	3	2	0	0	0	0	0			
Armtpt	6	6	6	9	9	3	3	3	3	3	3	3	3	3	3			
ATR	99	18	18	57	56	46	38	27	26	25	23	23	2	2	2			
BA-64	6	6	6	6	3	2	2	2	2	2	0	0	0	0	0			
M-3	0	0	0	55	49	0	0	0	0	0	0	0	0	0	0			
MG	12	12	12	16	15	6	5	4	3	2	1	1	1	1	1			
T-34	152	152	152	148	97	56	57	45	42	45	38	46	46	46	46			
T-60	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1			
T-70	30	30	30	30	22	17	17	14	15	15	17	23	23	23	23			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	2	0	1	3	0	0	0	0	0	0	0	0	6		
76mmGun	0	0	0	0	1	2	0	0	0	0	1	0	0	0	0	4		
82mmtr	0	0	0	0	1	3	1	0	0	1	1	0	0	0	0	7		
Armtpt	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3		
ATR	0	0	0	2	1	8	8	1	1	1	1	0	0	0	0	23		
BA-64	0	0	0	0	3	1	0	0	0	0	2	0	0	0	0	6		
M-3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5		
MG	0	0	0	0	1	3	1	0	1	1	1	0	0	0	0	8		
T-34	0	0	0	0	41	45	1	3	7	0	8	0	0	0	0	105		
T-60	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
T-70	0	0	0	0	1	7	2	0	0	0	0	0	0	0	0	10		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	1	0	0	4	0	0	0	0	0	0	0	0	5		
76mmGun	0	0	0	0	0	3	1	2	1	0	0	0	0	0	0	7		
82mmtr	0	0	0	0	2	6	0	1	1	0	1	0	0	0	0	11		
ATR	0	0	0	1	0	2	0	0	0	0	1	0	0	0	0	4		
M-3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
MG	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3		
T-34	0	0	0	4	10	13	4	2	3	4	6	0	0	0	0	46		
T-70	0	0	0	0	7	7	2	3	1	2	0	0	0	0	0	22		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	2	2	2	6	6	6	6	6	6	0	0	0	42		
76mmGun	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	4		
T-34	0	0	0	4	14	35	33	20	16	13	12	4	0	0	0	151		
T-70	0	0	0	0	7	14	12	7	6	6	4	0	0	0	0	56		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-70	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
76mmGun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
T-34	0	0	0	0	0	0	6	7	7	7	7	8	0	0	0	42		
T-70	0	0	0	0	0	4	4	4	2	2	2	4	0	0	0	22		

5th Gds TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	42	42	42	41	41	41	41	41	35	35	35	35	35	35	35			
37mmAA	16	16	14	8	5	4	4	4	4	4	4	4	4	4	4			
45mmAT	31	31	31	16	11	10	9	8	7	7	5	5	5	5	7			
76mmGun	24	24	24	21	19	19	19	19	30	29	29	19	19	19	19			
82mmmr	55	55	55	49	46	45	44	44	44	44	44	44	44	44	44			
AA MG	16	16	16	12	10	9	9	9	9	9	9	9	9	9	9			
ATR	189	189	189	167	158	157	156	156	152	186	185	185	152	152	152			
BA-64	28	28	28	25	23	23	23	23	23	23	23	23	23	23	23			
BM-13	0	0	0	0	0	0	0	0	0	23	21	21	0	0	0			
Bren	20	20	20	17	16	16	16	16	16	16	16	16	16	16	16			
MG	120	120	120	106	100	99	98	98	96	110	110	110	96	96	96			
MK-4	21	21	21	13	5	4	4	4	1	1	1	0	0	0	0			
T-34	127	127	106	46	21	18	18	14	6	8	9	10	10	9	22			
T-70	63	63	66	33	17	12	13	7	2	4	6	8	8	9	12			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6		
37mmAA	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	7		
45mmAT	0	0	0	10	3	1	1	0	1	0	1	0	0	0	0	17		
76mmGun	0	0	0	2	2	0	0	0	0	0	1	0	0	0	0	5		
82mmmr	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	7		
AA MG	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	5		
ATR	0	0	0	15	6	1	1	0	4	0	0	0	0	0	0	27		
BA-64	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3		
Bren	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3		
MG	0	0	0	10	4	1	1	0	2	0	0	0	0	0	0	18		
MK-4	0	0	0	5	5	1	0	0	2	0	0	0	0	0	0	13		
T-34	0	0	0	41	17	2	2	3	4	0	0	0	0	1	0	70		
T-70	0	0	0	22	11	3	3	4	5	0	0	0	0	0	0	48		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
37mmAA	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5		
45mmAT	0	0	0	5	2	0	0	1	0	0	1	0	0	0	0	9		
76mmGun	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
82mmmr	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	4		
AA MG	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
ATR	0	0	0	7	3	0	0	0	0	0	0	0	0	0	0	10		
BA-64	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2		
BM-13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		
Bren	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
MG	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0	6		
MK-4	0	0	0	3	3	0	0	0	1	0	0	1	0	0	0	8		
T-34	0	0	21	19	8	1	1	1	4	0	1	0	0	0	0	56		
T-70	0	0	0	11	5	2	1	2	0	0	0	0	0	0	0	21		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	12		
T-70	7	7	4	0	0	0	0	0	0	0	0	0	0	0	0	18		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3		
T-70	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
T-34	0	0	0	0	0	0	0	0	0	2	2	1	0	0	13	18		
T-70	0	0	3	0	0	0	0	0	0	2	2	2	0	1	3	13		

6th TC

	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	42	42	42	41	38	38	38	38	38	38	38	38	38	38	38			
37mmAA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25			
45mmAT	32	32	32	28	31	27	22	19	18	10	8	8	8	8	8			
76mmGun	24	24	24	21	27	34	27	18	35	31	29	30	30	30	29			
82mmmr	55	55	55	53	48	47	45	43	43	43	43	43	43	43	43			
Armtpt	20	20	20	20	20	20	20	20	20	21	21	21	21	21	21			
ATR	189	189	212	196	151	152	153	107	117	106	95	95	95	95	93			
BA-64	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29			
BM-13	0	0	24	24	24	24	48	22	22	22	22	22	22	22	23			
MG	120	120	134	120	84	80	82	56	56	52	52	52	52	52	52			
SU-122	0	0	0	0	0	0	0	0	0	6	4	4	4	4	4			
T-34	131	131	131	116	57	50	35	21	21	45	29	31	71	65	63			
T-60	9	9	9	9	10	6	5	4	4	5	3	4	4	4	4			
T-70	24	24	24	24	20	17	13	10	8	22	13	13	16	16	16			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0			2
45mmAT	0	0	0	2	4	2	2	1	1	0	1	0	0	0	0			13
76mmGun	0	0	0	1	3	3	5	1	1	0	1	0	0	0	0			15
82mmmr	0	0	0	1	2	0	1	1	0	0	0	0	0	0	0			5
ATR	0	0	0	11	41	6	16	13	0	4	2	0	0	0	1			94
BM-13	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0			1
MG	0	0	0	10	24	2	6	6	0	2	0	0	0	0	0			50
SU-122	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0			2
T-34	0	0	0	14	46	5	14	13	0	0	2	0	0	4	2			100
T-60	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0			4
T-70	0	0	0	0	3	3	3	2	2	0	1	0	0	0	0			14
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0			2
45mmAT	0	0	0	2	2	2	3	2	2	0	1	0	0	0	0			14
76mmGun	0	0	0	2	1	3	2	1	1	1	1	0	0	0	1			13
82mmmr	0	0	0	1	3	1	1	1	0	0	0	0	0	0	0			7
ATR	0	0	0	5	19	1	6	6	0	2	1	0	0	0	1			41
BM-13	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0			3
MG	0	0	0	4	12	2	6	6	0	2	0	0	0	0	0			32
T-34	0	0	0	5	13	2	1	1	0	1	1	0	0	2	0			26
T-60	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0			4
T-70	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0			4
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	2	2	2	2	0	0	0	0	0	0	0			8
76mmGun	0	0	0	2	3	5	6	7	8	9	10	9	9	9	9			86
BM-13	0	0	0	0	0	0	0	2	2	22	1	1	1	1	0			30
T-34	7	7	7	8	21	23	24	25	25	19	15	13	13	15	15			237
T-60	1	1	1	1	0	2	2	3	3	2	3	2	2	2	2			27
T-70	0	0	0	0	1	1	2	3	3	3	4	4	1	1	1			24
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
T-34	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0			40
T-70	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0			7
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0			2
76mmGun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0			1
BM-13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1			3
T-34	0	0	0	4	0	0	0	0	0	11	5	2	0	0	0			22
T-60	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0			3
T-70	0	0	0	0	0	0	0	0	0	2	0	0	3	0	0			5

OTHER NONDIV

DAY

ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
120mmmr	180	178	175	172	172	172	172	172	172	172	172	172	172	172	172
122mmGun	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
122mmHow	24	24	24	24	24	24	24	24	24	20	20	20	20	20	20
152mmGun	36	35	35	35	35	35	35	35	35	35	34	34	34	34	34
203mmHow	24	24	24	24	24	24	24	24	24	24	24	24	24	24	12
37mmAA	16	16	16	15	13	13	13	13	13	13	13	13	13	13	13
45mmAT	12	12	12	12	12	12	10	8	6	4	2	0	0	0	0
57mm AT	0	0	0	0	0	0	2	4	6	8	10	12	14	16	18
76mmGun	24	18	18	18	18	18	18	18	18	18	18	18	18	18	18
85mmAA	34	34	34	34	32	32	32	32	32	32	32	32	32	32	32
AA MG	20	20	20	19	16	14	14	14	14	13	13	13	13	12	12
ATR	807	798	791	783	783	783	783	772	759	741	735	729	729	729	729
BM-13	24	22	22	22	20	20	20	20	20	20	20	20	20	20	20
Dog	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flame	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
MG	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmmr	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	4
122mmHow	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
152mmGun	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2
37mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
76mmGun	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
85mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
AA MG	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
ATR	0	9	4	5	0	0	0	11	13	16	6	6	0	0	0	70
BM-13	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1

DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
120mmmr	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4
122mmHow	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
37mmAA	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
85mmAA	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
AA MG	0	0	0	0	2	1	0	0	0	1	0	0	0	1	0	5
ATR	0	0	3	3	0	0	0	0	0	2	0	0	0	0	0	8
BM-13	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	3

IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
45mmAT	0	0	0	0	0	0	-2	-2	-2	-2	-2	-2	0	0	0	-12

RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
ALL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UNATTACHED

UNATTACHED																		
	DAY																	
ON HAND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
120mmmr	36	36	36	36	36	36	0	18	16	31	31	58	91	125	125			
122mmGun	0	0	0	0	16	16	16	16	16	16	16	16	16	16	16			
122mmHow	19	19	18	17	0	0	0	0	0	0	0	0	0	17	17			
152mmGun	0	0	0	0	18	18	18	17	17	17	17	17	17	17	17			
37mmAA	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0			
45mmAT	99	59	59	29	20	20	29	29	29	48	46	46	26	46	61			
57mm AT	20	20	20	20	20	20	0	0	0	0	20	20	20	20	20			
76mmGun	196	176	172	129	116	113	56	69	109	129	158	130	121	135	131			
82mmmr	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0			
ATR	585	703	641	585	571	569	448	513	439	461	464	551	502	570	615			
BM-13	48	48	24	0	0	0	0	0	0	0	0	0	0	0	13			
MG	32	32	18	0	0	0	0	0	0	0	0	0	0	0	14			
T-34	43	43	43	0	0	0	0	0	0	0	0	0	0	0	0			
T-60	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0			
T-70	23	23	23	0	0	0	0	0	0	0	0	0	0	0	0			
DST + ABND	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	4		
122mmHow	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
45mmAT	0	0	1	9	0	0	0	2	0	0	2	0	0	0	3	17		
76mmGun	0	0	3	10	1	1	0	2	0	0	1	31	0	0	2	51		
ATR	0	0	7	8	8	3	1	3	1	0	6	7	0	0	2	46		
DAMAGED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	1	0	0	5	0	0	0	6		
122mmHow	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
152mmGun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
45mmAT	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
76mmGun	0	0	2	2	2	2	0	2	1	0	0	0	0	0	2	13		
ATR	0	0	1	3	1	1	0	0	1	0	0	2	0	0	1	10		
BM-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4		
IN REPAIR	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3		
76mmGun	0	0	0	0	0	0	0	6	5	5	3	0	0	0	0	19		
REPLACED	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
120mmmr	0	0	0	0	0	0	0	0	0	15	0	6	0	0	0	21		
57mm AT	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20		
76mmGun	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15		
ATR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18		
RETURNS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL		
45mmAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
76mmGun	0	0	0	0	0	0	0	0	9	3	2	3	0	0	0	17		

APPENDIX J**AMMUNITION STATUS IN GERMAN UNITS**

J-1. INTRODUCTION. This appendix contains data tables showing ammunition statistics for individual German units in the KDB. Statistics reflect status as recorded in the KDB. Tables are shown only for the 24 primary combat units listed in Table 3-1. As noted in Chapter 2, ammunition assets in small units attached to these primary units on a day are included in the primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Daily status in the KDB is as of 1800 on the indicated day. Tabulated tonnage is in short tons. Further descriptions of ammunition type status categories can be found in the KDB documentation. The ammunition type status categories are:

- a. T/AT OH denoting onhand tank/antitank ammunition tonnage.
- b. ARTY OH denoting onhand artillery tonnage.
- c. RKT OH denoting onhand rocket tonnage.
- d. OTHER OH denoting onhand small arms, antiaircraft, and miscellaneous weapon tonnage.
- e. T/AT USED denoting tank/antitank ammunition tonnage expended or consumed.
- f. ARTY USED denoting artillery tonnage expended or consumed.
- g. RKT USED denoting rocket tonnage expended or consumed.
- h. OTHER USED denoting small arms, antiaircraft, and miscellaneous weapon tonnage expended or consumed.
- i. T/AT RECD denoting tank/antitank ammunition tonnage received.
- j. ARTY RECD denoting artillery tonnage received.
- k. RKT RECD denoting rocket tonnage received.
- l. OTHER RECD denoting small arms, antiaircraft, and miscellaneous weapon tonnage received.

Negative numbers in OH and RECD categories indicate net tonnage due out of a unit. The data do not always "balance," in an accounting sense. The change in daily onhand tonnage often differs from (previous onhand + received - used). Several units use ammunition with zero inventory tonnage onhand and received. Nevertheless, these data reflect the most complete ammunition accounting available from the unit records.

J-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The order and nomenclature of units is the same as that used in Table 3-1. For each ammunition status category in each tabulated unit, there is a column entry in each row (ammunition type/status) for each calendar day from 4 (July) through 18 (July) in 1943. Row totals over the KDB timeframe are given in the rightmost column for all ammunition type status categories except ONHAND. The classification of ammunition types is that used in the KDB.

J-3. GERMAN COMBAT UNIT AMMUNITION DATA

3rd Pz Corps

3rd Pz Corps	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	651	651	651	1100	1014	907	881	797	786	752	752	764	592	627	645			
ARTY OH	1558	1138	1225	1225	1184	2472	2302	1930	1523	1301	1047	702	669	564	441			
RKT OH	1108	856	1213	1213	1270	1505	1493	1152	1170	1210	1143	1292	1129	1019	938			
OTHER OH	580	609	799	2267	2245	2250	2267	2399	2450	2382	2358	2255	2774	2817	2996			
T/AT USED	0	0	0	0	86	11	23	28	0	21	11	10	7	0	3	200		
ARTY USED	0	421	145	0	170	69	22	142	116	41	79	72	57	83	95	1512		
RKT USED	0	252	0	0	85	235	12	341	106	0	175	0	162	110	81	1559		
OTHER USED	0	0	13	7	6	5	14	2	0	1	13	13	3	0	0	77		
T/AT RECD	0	0	0	449	0	-96	-3	-56	-10	-14	11	22	-165	35	21	194		
ARTY RECD	0	0	233	0	129	1358	-149	-230	-290	-182	-175	-274	24	-22	-28	394		
RKT RECD	0	0	357	0	142	470	0	0	124	40	107	149	0	0	0	1389		
OTHER RECD	0	29	203	1474	-15	10	30	133	52	-68	-11	-91	522	44	178	2490		

48th Pz Corps

48th Pz Corps	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	1805	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ARTY OH	475	468	369	249	156	194	157	429	313	373	363	285	234	202	194			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	101	44	44	44	44	44	44	44	44	44	44	44	44	44	44			
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY USED	0	75	99	99	219	6	37	90	116	0	52	85	51	32	9	970		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	104	0	-20	125	44	0	363	0	60	42	6	0	0	0	724		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

4th Panzer Army

	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER OH	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

52nd Corps

	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER OH	22	22	22	22	22	22	22	22	18	22	22	18	22	22	22	22	22
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	1	1	1	1	1	1	1	0	4	0	0	4	0	0	0	0	15
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	1	1	1	1	1	1	1	0	0	4	0	0	4	0	0	0	15

Corps Raus

	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	0	16	62	5	25	47	18	17	18	61	32	18	23	25	28		
ARTY OH	0	140	523	41	216	396	150	147	155	521	268	157	194	211	238		
RKT OH	0	21	77	6	32	58	22	5	6	19	10	6	7	8	9		
OTHER OH	0	11	41	3	17	31	12	11	12	40	21	12	15	16	18		
T/AT USED	0	0	16	62	5	25	47	18	17	18	61	32	18	23	25	367	
ARTY USED	0	0	140	523	41	216	396	150	147	155	521	268	157	194	211	3119	
RKT USED	0	0	21	77	6	32	58	22	5	6	19	10	6	7	8	277	
OTHER USED	0	0	11	41	3	17	31	12	11	12	40	21	12	15	16	242	
T/AT RECD	0	16	62	5	25	47	18	17	18	61	32	18	23	25	28	395	
ARTY RECD	0	140	523	41	216	396	150	147	155	521	268	157	194	211	238	3357	
RKT RECD	0	21	77	6	32	58	22	5	6	19	10	6	7	8	9	286	
OTHER RECD	0	11	41	3	17	31	12	11	12	40	21	12	15	16	18	260	

II SS Pz Corps

II SS Pz Corps	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY OH	283	150	114	91	98	106	90	96	98	85	68	78	74	88	101		
RKT OH	2798	2644	2820	2669	2754	2248	2096	1571	1353	1122	633	451	380	172	0		
OTHER OH	146	146	146	146	146	146	146	146	146	146	146	146	146	146	94		
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY USED	0	133	36	23	0	0	16	0	0	13	17	0	4	0	0	242	
RKT USED	70	154	0	151	0	507	152	524	218	231	489	182	71	208	0	2957	
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	8	8	0	6	1	0	0	10	0	14	13	60	
RKT RECD	0	0	176	0	86	0	0	0	0	0	0	0	0	0	0	262	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Prov Army
Kempf

Prov Army Kempf	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	1261	1103	876	526	533	478	594	575	683	605	548	490	576	540	529			
ARTY OH	5796	5066	4023	2416	2450	2195	2727	2643	3136	2781	2517	2252	2648	2482	2428			
RKT OH	237	237	183	2	2	2	2	2	2	2	2	2	37	37	37			
OTHER OH	7113	6751	6508	6613	6482	6154	5187	4892	4636	4453	4359	4739	4409	4157	4026			
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	1379	1528	2038	546	628	382	314	425	835	545	547	785	413	537	10902		
T/AT RECD	104	0	143	0	0	0	0	78	59	13	7	349	24	0	33	810		
ARTY RECD	480	659	0	0	0	0	0	358	270	61	33	1604	110	0	165	3740		
RKT RECD	0	66	0	180	0	0	97	0	0	0	110	0	0	0	0	453		
OTHER RECD	127	39	1075	1047	584	0	143	234	911	152	135	148	486	154	267	5502		

106th ID

106th ID	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	297	251	252	272	263	268	284	287	264	253	262	264	262	262	258				
ARTY OH	2530	2131	2141	2311	2239	2282	2418	2437	2246	2148	2227	2247	2225	2231	2192				
RKT OH	373	315	316	341	331	337	358	360	348	343	355	360	360	363	363				
OTHER OH	186	135	126	108	70	66	67	46	18	-10	-47	-45	-58	-55	-62				
T/AT USED	3	47	7	11	11	8	7	7	28	18	11	8	9	7	13	195			
ARTY USED	30	399	60	92	93	65	62	57	240	149	95	70	74	59	109	1654			
RKT USED	4	58	9	13	14	9	9	8	18	11	7	5	5	4	8	182			
OTHER USED	13	51	15	38	40	12	15	26	32	32	50	5	17	2	13	361			
T/AT RECD	0	0	8	31	2	13	23	9	6	6	20	11	6	8	8	151			
ARTY RECD	0	0	70	262	21	108	198	75	49	52	174	89	52	65	70	1285			
RKT RECD	0	0	10	39	3	16	29	11	5	6	19	10	6	7	8	169			
OTHER RECD	0	0	5	20	2	8	15	6	4	4	13	7	4	5	5	98			

167th ID	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	124	121	118	116	113	110	107	105	102	99	97	94	91	88	88			
ARTY OH	605	603	655	605	595	490	587	546	459	452	364	483	498	468	363			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	362	330	357	354	352	362	357	338	322	319	373	376	373	365	354			
T/AT USED	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	39		
ARTY USED	0	22	6	49	10	105	3	41	88	52	89	0	16	30	105	616		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	32	0	3	3	0	5	19	16	3	0	0	3	8	11	103		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	21	58	0	0	0	100	0	1	45	0	119	31	0	0	375		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	27	0	0	11	0	0	0	0	54	3	0	0	0	95		

168th ID	DAY															
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
T/AT OH	187	187	187	185	149	149	167	172	172	171	170	166	166	166	166	
ARTY OH	812	764	831	815	779	672	629	511	523	492	412	358	432	414	427	
RKT OH	307	274	274	233	211	211	181	182	158	138	110	101	98	94	92	
OTHER OH	327	308	294	292	288	272	243	223	241	234	228	216	213	212	210	
T/AT USED	0	0	0	2	1	0	1	3	1	2	1	4	0	0	0	15
ARTY USED	111	151	35	57	39	65	148	128	29	32	81	66	16	23	12	993
RKT USED	0	32	0	41	22	0	43	49	22	17	27	8	3	3	2	269
OTHER USED	3	19	14	2	5	16	29	20	10	7	6	12	4	4	1	152
T/AT RECD	0	0	0	0	-36	0	19	8	1	1	0	0	0	0	0	-7
ARTY RECD	0	103	102	41	3	-42	105	10	42	1	1	12	90	5	24	497
RKT RECD	0	0	0	0	0	0	13	49	-2	-3	0	0	0	0	0	57
OTHER RECD	0	0	0	0	0	0	0	0	28	0	0	0	1	3	0	32

198th ID	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	0	0	0	0	0	0	0	0	-2	0	17	18	19	21	18		
ARTY OH	0	0	0	0	0	0	0	0	-14	-12	142	153	165	178	153		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	0	0	0	0	0	0	0	0	-4	-11	-8	-7	-12	-9	-15		
T/AT USED	0	0	0	0	0	0	0	0	7	6	2	9	5	6	11	46	
ARTY USED	0	0	0	0	0	0	0	0	63	50	20	78	41	52	95	399	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	0	0	0	8	11	10	6	9	1	12	57	
T/AT RECD	0	0	0	0	0	0	0	0	6	6	20	11	6	8	8	65	
ARTY RECD	0	0	0	0	0	0	0	0	49	52	174	89	52	65	70	551	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	4	4	13	7	4	5	5	42	

255th ID

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	84	82	74	73	68	68	68	64	63	54	50	47	46	46	41				
ARTY OH	421	439	357	365	334	433	431	393	432	351	356	322	360	409	363				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	319	317	310	296	258	253	253	280	264	319	308	301	299	285	253				
T/AT USED	0	2	8	1	5	0	0	4	1	8	4	3	1	0	5				42
ARTY USED	0	19	82	5	47	0	2	39	14	85	40	33	10	0	46				422
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	2	7	14	39	5	0	0	16	0	11	7	2	14	32				149
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
ARTY RECD	0	37	0	13	16	100	0	2	54	3	45	0	48	50	0				368
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	27	0	55	0	0	0	0	0				82

320th ID

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	292	257	238	245	237	233	245	243	198	196	204	206	208	211	214				
ARTY OH	2486	2185	2024	2081	2019	1981	2083	2064	1683	1669	1738	1752	1770	1790	1816				
RKT OH	367	323	299	308	299	293	308	306	306	306	306	306	306	306	306				
OTHER OH	167	129	78	14	-20	-38	-46	-85	-138	-148	-189	-188	-195	-188	-188				
T/AT USED	9	35	27	24	10	17	11	11	51	8	12	9	4	5	5				238
ARTY USED	73	301	230	205	83	146	96	95	430	65	104	75	34	45	45				2027
RKT USED	11	44	34	30	12	21	14	14	0	0	0	0	0	0	0				180
OTHER USED	31	38	56	84	36	26	23	44	57	14	55	6	8	1	5				484
T/AT RECD	0	0	8	31	2	13	23	9	6	6	20	11	6	8	8				151
ARTY RECD	0	0	70	262	21	108	198	75	49	52	174	89	52	65	70				1285
RKT RECD	0	0	10	39	3	16	29	11	0	0	0	0	0	0	0				108
OTHER RECD	0	0	5	20	2	8	15	6	4	4	13	7	4	5	5				98

332nd ID

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	123	108	108	98	75	73	61	47	43	40	19	19	19	17	5				
ARTY OH	649	537	692	598	369	720	658	518	565	587	377	431	478	508	394				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	365	358	353	334	277	367	367	336	324	314	250	257	257	252	242				
T/AT USED	0	14	1	9	23	3	12	14	4	3	21	0	0	2	11				117
ARTY USED	0	144	6	94	230	25	115	140	45	27	210	0	3	20	115				1174
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	7	5	19	57	0	0	31	12	10	65	0	0	5	10				221
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
ARTY RECD	0	32	162	0	0	376	53	0	92	49	0	54	50	51	0				919
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	90	0	0	0	0	0	7	0	0	0				97

57th ID	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	85	85	84	83	82	79	76	74	71	71	70	68	66	65	64			
ARTY OH	390	413	500	488	488	476	449	428	399	401	429	418	398	380	401			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	268	330	312	317	304	322	320	317	312	307	302	296	286	281	276			
T/AT USED	0	0	1	1	1	3	3	2	3	1	1	1	2	2	0	21		
ARTY USED	0	3	9	11	9	25	27	21	29	6	14	11	20	18	2	205		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	18	0	13	0	3	3	5	5	5	5	10	5	5	77		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	40	82	0	9	13	0	0	0	8	41	0	0	0	23	216		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	62	0	5	0	18	0	0	0	0	0	0	0	0	0	85		

11th PzD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	409	383	361	408	400	406	396	429	381	377	315	304	295	288	281			
ARTY OH	546	501	482	488	453	454	415	533	655	511	519	501	520	471	440			
RKT OH	4	3	3	3	3	3	3	5	6	4	5	5	3	3	2			
OTHER OH	323	298	295	286	273	265	322	356	336	320	302	285	274	259	250			
T/AT USED	0	27	40	13	8	8	13	15	43	37	23	20	10	12	11	280		
ARTY USED	46	155	51	67	62	89	59	102	182	186	212	146	89	54	80	1580		
RKT USED	0	1	0	0	0	0	0	0	0	2	0	0	2	0	1	6		
OTHER USED	2	26	23	13	13	11	7	17	19	17	18	17	11	16	9	219		
T/AT RECD	0	0	18	60	0	14	3	49	-6	33	-39	9	1	4	4	150		
ARTY RECD	0	110	32	72	28	89	20	219	304	42	220	127	108	5	49	1425		
RKT RECD	0	0	0	0	0	0	0	1	2	0	1	0	0	0	0	4		
OTHER RECD	0	0	20	5	0	3	63	51	0	0	0	0	0	0	0	142		

19th PzD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	247	277	277	281	274	278	253	250	240	251	248	247	249	251	250			
ARTY OH	610	554	458	313	387	314	275	287	324	358	481	452	437	399	407			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	437	406	351	306	281	317	280	255	210	180	157	127	125	179	176			
T/AT USED	0	0	1	0	5	0	8	17	4	2	3	2	5	4	3	54		
ARTY USED	0	138	94	102	113	102	72	53	47	41	57	38	69	45	46	1017		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	32	57	45	25	104	36	25	45	32	23	31	3	12	3	473		
T/AT RECD	0	30	0	4	-2	5	-17	13	-6	13	1	1	7	6	2	57		
ARTY RECD	0	82	-3	-43	39	29	32	65	84	75	180	9	54	8	54	665		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	2	0	0	140	0	0	0	2	0	0	2	66	0	212		

3rd PzD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	424	420	370	380	384	311	278	271	267	262	256	246	222	202	296			
ARTY OH	455	460	413	451	395	374	258	318	472	350	329	321	315	340	287			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	343	339	314	319	319	328	284	311	323	276	296	261	246	258	243			
T/AT USED	2	4	61	5	0	72	33	22	13	5	6	10	38	33	0			304
ARTY USED	52	89	53	0	56	127	115	54	30	122	22	7	53	45	53			878
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
OTHER USED	14	24	25	0	0	0	44	21	12	47	0	35	33	17	15			287
T/AT RECD	0	0	11	14	4	0	0	16	9	0	0	0	14	13	95			176
ARTY RECD	0	94	6	39	0	106	0	113	185	0	0	0	47	70	0			660
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
OTHER RECD	0	19	0	5	0	9	0	47	23	0	21	0	18	29	0			171

6th PzD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	435	422	422	412	386	358	345	345	348	340	323	375	369	366	408			
ARTY OH	805	680	680	773	754	704	665	673	615	574	477	401	431	404	381			
RKT OH	37	29	29	36	36	33	33	33	31	30	26	23	19	20	18			
OTHER OH	526	520	493	466	440	419	387	380	349	317	291	273	269	255	248			
T/AT USED	0	13	0	10	34	28	24	6	13	8	17	14	5	3	5			180
ARTY USED	0	116	11	23	19	49	39	5	49	38	94	108	95	65	101			812
RKT USED	0	8	0	0	0	2	1	0	2	1	4	3	5	0	2			28
OTHER USED	0	6	27	27	26	21	32	7	32	32	26	21	4	15	9			285
T/AT RECD	0	0	0	0	7	0	11	6	17	0	0	66	0	0	46			153
ARTY RECD	0	-9	11	117	1	0	0	13	-9	-2	-4	33	125	38	77			391
RKT RECD	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0			8
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2			5

7th PzD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	379	332	300	218	199	203	215	257	288	297	262	254	311	311	311			
ARTY OH	1018	676	650	466	403	393	355	344	442	656	510	449	576	543	504			
RKT OH	91	58	60	45	36	30	30	19	42	69	53	47	46	47	47			
OTHER OH	533	508	441	333	249	216	191	166	161	152	120	126	144	144	148			
T/AT USED	0	46	32	82	31	16	9	3	5	2	26	6	0	0	0			258
ARTY USED	0	257	185	141	131	87	75	118	58	24	124	54	25	33	39			1351
RKT USED	0	33	0	15	9	2	0	10	0	0	16	6	1	0	0			92
OTHER USED	0	24	67	108	85	33	24	26	5	9	32	8	1	0	0			422
T/AT RECD	0	0	0	0	12	20	21	44	36	11	-9	-2	57	0	0			190
ARTY RECD	0	-86	159	-43	68	77	38	82	181	239	-23	-7	153	0	0			838
RKT RECD	0	0	1	0	0	-5	0	0	22	27	0	0	0	1	0			46
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	14	20	0	4			38

DR SS PzGrD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
T/AT OH	688	664	637	615	596	576	565	531	493	476	473	465	447	442	442	
ARTY OH	880	621	427	345	432	339	284	316	366	298	260	316	316	390	421	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	657	626	646	610	625	616	611	604	595	590	584	575	564	553	551	
T/AT USED	0	24	27	22	19	20	11	34	38	16	3	8	18	5	0	245
ARTY USED	0	259	193	82	75	94	54	124	176	68	38	93	111	44	9	1420
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	30	13	36	6	8	5	8	10	5	6	9	10	11	2	159
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	162	0	0	156	226	0	0	150	111	117	40	962
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	32	0	21	0	0	1	0	0	0	0	0	0	0	54

GD PzGrD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
T/AT OH	982	2708	2630	2631	2581	2578	2527	2445	2381	2365	2350	2338	2327	2316	2314	
ARTY OH	663	565	377	409	479	557	508	575	590	621	555	481	479	440	440	
RKT OH	60	52	47	55	60	38	29	45	50	55	60	56	54	54	47	
OTHER OH	785	777	719	722	684	683	702	696	683	690	683	627	544	519	519	
T/AT USED	46	78	95	130	130	15	71	99	73	16	16	11	12	17	2	811
ARTY USED	162	275	333	19	98	106	119	58	33	0	66	74	40	77	0	1460
RKT USED	5	8	10	0	0	21	11	2	1	0	0	4	2	2	7	73
OTHER USED	39	65	79	92	92	10	16	20	20	0	6	56	87	54	0	636
T/AT RECD	0	0	17	131	81	12	20	17	9	0	0	0	1	6	0	294
ARTY RECD	0	176	145	50	169	184	69	125	48	31	0	0	38	38	0	1073
RKT RECD	0	0	5	8	5	0	2	17	6	5	5	0	0	2	0	55
OTHER RECD	0	0	21	95	55	9	35	14	8	6	0	0	4	29	0	276

LSSAH PzGrD

DAY

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
T/AT OH	818	818	609	509	469	448	422	350	289	246	237	231	223	217	217	
ARTY OH	877	437	368	302	304	327	315	318	285	306	320	347	339	464	565	
RKT OH	255	130	110	95	107	97	92	94	92	97	97	94	107	173	202	
OTHER OH	866	837	740	670	651	626	563	702	676	664	651	645	632	632	638	
T/AT USED	0	0	209	100	41	21	26	72	60	43	9	6	8	6	0	601
ARTY USED	6	440	69	66	162	96	128	263	279	179	106	64	50	53	0	1961
RKT USED	0	125	21	14	0	10	4	0	1	0	0	3	0	0	0	178
OTHER USED	0	29	97	70	19	25	63	16	25	13	13	6	13	3	0	392
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	164	120	115	266	246	200	120	91	41	179	101	1643
RKT RECD	0	0	0	0	12	0	0	1	0	4	0	0	13	66	29	125
OTHER RECD	0	0	0	0	0	0	0	155	0	0	0	0	0	3	6	164

T SS PzGrD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	692	678	662	642	633	633	626	596	584	536	530	522	504	498	492		
ARTY OH	631	480	369	293	275	339	306	366	308	294	233	292	310	391	274		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	551	540	592	582	576	655	591	563	562	547	538	529	518	553	501		
T/AT USED	0	14	16	20	9	0	7	30	13	48	5	8	18	6	6	200	
ARTY USED	0	152	111	76	35	0	33	108	58	201	61	93	111	51	116	1206	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	10	7	10	6	0	64	28	3	14	10	9	10	3	53	227	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	18	64	0	168	0	186	0	153	129	131	0	849	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	59	0	0	79	0	0	1	0	0	0	0	38	0	177	
UNATTACHED	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58		
OTHER OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52		
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX K**AMMUNITION STATUS IN SOVIET UNITS**

K-1. INTRODUCTION. This appendix contains data tables showing ammunition statistics for individual Soviet units in the KDB. Statistics reflect status as recorded in the KDB. Tables are shown only for the 67 primary combat units listed in Table 3-2. As noted in Chapter 2, ammunition assets in small units attached to these primary units on a day are included in the primary unit assets. There is no double counting. The units attached to each primary unit on each day are shown in Appendix D. Daily status in the KDB is as of 1800 on the indicated day. Tabulated tonnage is in short tons. Further descriptions of ammunition type status categories can be found in the KDB documentation. The ammunition type status categories are:

- a. T/AT OH denoting onhand tank/antitank ammunition tonnage.
- b. ARTY OH denoting onhand artillery tonnage.
- c. RKT OH denoting onhand rocket tonnage.
- d. OTHER OH denoting onhand small arms, antiaircraft, and miscellaneous weapon tonnage.
- e. T/AT USED denoting tank/antitank ammunition tonnage expended or consumed.
- f. ARTY USED denoting artillery tonnage expended or consumed.
- g. RKT USED denoting rocket tonnage expended or consumed.
- h. OTHER USED denoting small arms, antiaircraft, and miscellaneous weapon tonnage expended or consumed.
- i. T/AT RECD denoting tank/antitank ammunition tonnage received.
- j. ARTY RECD denoting artillery tonnage received.
- k. RKT RECD denoting rocket tonnage received.
- l. OTHER RECD denoting small arms, antiaircraft, and miscellaneous weapon tonnage received.

Negative numbers in OH and RECD categories indicate net tonnage due out of a unit.

K-2. FORMAT OF DATA TABLES. The unit ID (name) is given in the upper left corner of each table. The order and nomenclature of units is the same as that used in Table 3-2. For each ammunition status category in each tabulated unit, there is a column entry in each row (ammunition type/status) for each calendar day from 4 (July) through 18 (July) in 1943. Row totals over the KDB timeframe are given in the rightmost column for all ammunition type status categories except ONHAND. The classification of ammunition types is that used in the KDB.

K-3. SOVIET COMBAT UNIT AMMUNITION DATA

6th Gds AbnD	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	
ARTY OH	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

9th Gds AbnD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	28	28	28	28	21	21	21	21	21	21	21	21	21	17	17		
ARTY OH	120	120	120	120	93	93	93	93	93	93	93	93	93	74	74		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	104	104	104	104	80	80	80	80	80	80	80	80	80	64	64		
T/AT USED	0	0	0	0	0	0	0	11	11	11	11	11	11	4	11	81	
ARTY USED	0	0	0	0	0	0	0	46	46	46	46	46	46	19	46	341	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	0	0	40	40	40	40	40	40	16	40	296	
T/AT RECD	0	0	0	0	-6	0	0	11	11	11	11	11	11	0	11	71	
ARTY RECD	0	0	0	0	-28	0	0	46	46	46	46	46	46	0	46	294	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	-24	0	0	40	40	40	40	40	40	0	40	256	

Trufanovs Det

Trufanovs Det	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	50	50	50	50	50	50	50	50	39	25	7	7	7	7	7			
ARTY OH	8	8	8	8	8	8	8	8	6	3	4	4	4	4	4			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	10	10	10	10	10	10	10	10	8	6	4	4	4	4	4			
T/AT USED	0	0	0	0	0	0	0	0	11	14	18	0	0	0	0	43		
ARTY USED	0	0	0	0	0	0	0	0	2	3	3	0	0	0	0	8		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	0	0	3	2	2	0	0	0	0	7		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

1st Tank Army

1st Tank Army	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	89	61	62	100	94	238	269	280	231	68	52	52	52	52	37			
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT OH	0	146	184	72	156	112	52	51	79	45	11	141	141	100	75			
OTHER OH	98	98	98	203	191	174	164	83	85	80	76	76	78	79	88			
T/AT USED	0	0	0	6	6	7	21	3	20	16	0	0	0	0	15	94		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT USED	0	34	44	0	15	44	43	45	28	37	34	15	0	4	25	368		
OTHER USED	0	3	3	3	28	25	12	7	3	15	2	2	3	0	0	106		
T/AT RECD	0	0	0	0	0	0	-17	0	0	0	0	0	0	0	0	-17		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT RECD	0	0	-35	0	99	0	-17	44	55	3	0	145	0	-37	0	257		
OTHER RECD	0	0	0	0	15	3	1	-12	7	13	0	2	4	1	9	43		

22d Gds RC

22d Gds RC	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
T/AT USED	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

23d Gds RC

23d Gds RC	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0			

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ARTY OH	0	0	0	0	0	0	0	0	23	23	23	23	58	93	
RKT OH	0	0	0	0	0	0	0	117	93	42	24	0	0	0	0
OTHER OH	1	1	1	1	1	1	1	4	4	10	10	7	7	7	7
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY USED	0	0	0	0	0	0	0	0	0	41	0	0	0	7	5
RKT USED	0	0	0	0	0	0	0	52	23	51	17	0	0	0	143
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	42	40
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

24th Gds RC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	161	8	119	116	120	120	120	0	0	0	1	1	1	1	1				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	0	0	0	90	56	54	54	0	0	0	180	180	180	120	90				
OTHER OH	41	2	21	23	23	23	23	1	1	1	4	4	4	4	4				
T/AT USED	0	1	12	4	4	0	0	0	0	0	0	0	0	0	0				21
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT USED	0	0	0	5	25	4	0	0	0	0	13	0	0	59	31				137
OTHER USED	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0				4
T/AT RECD	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0				8
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT RECD	0	0	0	68	-9	3	0	0	0	0	113	0	0	0	0				175
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0

25th Gds RC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	183	98	1	89	1	8	27	14	1	1	0	0	0	0	0				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	0	0	108	90	75	118	118	92	92	80	0	0	0	0	0				
OTHER OH	19	11	4	13	4	5	14	5	4	4	1	1	1	1	1				
T/AT USED	0	15	0	0	0	0	25	0	0	0	0	0	0	0	0				40
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT USED	0	0	31	18	14	3	0	27	0	12	0	0	0	0	0				105
OTHER USED	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0				4
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT RECD	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0				46
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0

32d Gds RC

32d Gds RC	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	0	0	0	0	0	0	0	23	23	23	23	23	23	24	24				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	156	148				
OTHER OH	1	1	1	1	1	1	1	2	2	2	2	2	2	5	5				
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	19	7		26		
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		

33d Gds RC

33d Gds RC	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1				
ARTY OH	0	0	0	0	0	0	0	65	40	15	15	15	15	15	46				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	87	85				
OTHER OH	1	1	1	1	1	1	1	6	6	6	6	6	6	9	9				
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
ARTY USED	0	0	0	0	0	0	0	0	25	25	0	0	0	0	0		50		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		4		
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31		31		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		

35th Gds RC

35th Gds RC	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	0	0	0	0	0	0	112	0	0	0	93	93	93	93	93			
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT OH	0	0	0	0	0	0	0	0	0	0	41	41	41	41	41			
OTHER OH	1	1	1	1	1	1	20	1	1	1	20	20	20	20	20			
T/AT USED	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	20		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

40th Army

40th Army	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	692	760	738	91	48	42	50	31	27	6	11	11	11	11	11			

ARTY OH	195	174	170	76	76	76	65	0	0	0	0	0	0	0	0
RKT OH	0	0	0	180	180	0	0	0	0	0	0	0	0	0	0
OTHER OH	192	196	87	16	15	12	13	7	7	6	4	4	4	4	4
T/AT USED	0	3	3	21	6	6	14	6	4	0	1	0	0	0	64
ARTY USED	0	21	4	1	0	0	29	0	0	0	0	0	0	0	55
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T/AT RECD	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
ARTY RECD	0	0	0	0	0	0	18	0	0	0	0	0	0	0	18
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

47th RC	DAY														
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18 Total
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER OH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

48th RC	DAY														
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18 Total
T/AT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER OH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49th RC

49th RC	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	0	0	0	0	0	0	0	142	1	1	0	0	0	0	0				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	0	0	0	0	0	0	0	41	41	41	0	0	0	0	0				
OTHER OH	1	1	1	1	1	1	1	29	4	4	1	1	1	1	1				
T/AT USED	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20			
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT USED	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9			
OTHER USED	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2			
T/AT RECD	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	24			
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT RECD	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	-4			
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

52d RC

52d RC	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
ARTY OH	0	0	0	93	116	116	116	0	0	0	0	0	0	0	0			
RKT OH	0	0	0	0	0	169	0	0	0	0	0	0	0	0	0			
OTHER OH	1	1	109	7	7	10	7	1	1	1	1	1	1	1	1			
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT USED	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11		
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	23		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

5th Gds Army

5th Gds Army	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	116	116	116	116	116	116	116	99	82	63	63	63	63	60	56				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	180	180	180	180	180	180	180	294	279	141	105	105	105	105	93				
OTHER OH	106	106	106	106	106	106	106	100	91	85	73	67	59	55	48				
T/AT USED	0	0	0	0	0	0	0	18	18	18	0	0	0	3	4	61			
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT USED	0	0	0	0	0	0	0	3	15	27	36	0	0	0	12	93			
OTHER USED	0	0	0	0	0	0	0	10	9	3	12	5	9	4	7	59			
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

5th Gds Tank Army

5th Gds Tank Army	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	81	81	81	81	81	81	80	76	56	36	36	36	173	36	16			

ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT OH	180	180	180	180	180	180	0	0	0	0	0	0	0	0	0	
OTHER OH	107	107	107	107	107	107	104	95	86	83	71	65	61	53	46	
T/AT USED	0	0	0	0	0	0	0	4	20	20	0	0	0	0	20	64
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	10	9	3	12	5	9	4	7	59
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

69th Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	82	82	0	0	0	0	64	62	62	50	37	25	85	85	76		
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT OH	0	0	0	0	0	0	270	0	0	0	0	0	0	0	0		
OTHER OH	55	55	51	50	50	50	58	52	52	52	51	51	55	55	54		
T/AT USED	0	0	0	0	0	0	0	0	0	12	12	12	0	0	0	36	
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT USED	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6	
OTHER USED	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	-8	-13	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

6th Gds Army	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	370	86	61	53	0	0	0	0	0	0	0	0	1	106	106		
ARTY OH	486	0	0	0	0	0	0	116	64	0	0	0	0	0	0		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54		
OTHER OH	536	77	75	72	76	70	69	119	123	115	94	94	99	104	113		
T/AT USED	0	15	9	9	0	0	0	0	0	0	0	0	0	0	0	33	
ARTY USED	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	52	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	3	3	3	7	9	2	7	3	15	21	2	3	0	0	78	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	15	3	1	-12	7	13	0	2	4	1	9	43	

7th Gds Army

7th Gds Army	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	485	84	81	137	121	217	213	207	126	125	128	128	128	127	125				
ARTY OH	725	141	85	85	110	105	140	146	109	115	179	179	175	174	174				
RKT OH	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	427	96	88	98	90	99	95	88	74	67	66	66	64	84	83				
T/AT USED	0	36	3	6	15	13	5	6	24	0	2	0	0	1	2	113			
ARTY USED	0	74	74	0	8	4	0	6	37	7	0	0	3	1	0	214			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	0	8	8	8	8	3	5	6	8	4	1	1	1	1	0	62			
T/AT RECD	0	0	0	29	0	4	0	0	23	0	5	0	0	0	0	61			
ARTY RECD	0	0	17	0	33	0	35	12	0	12	64	0	0	0	0	173			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	0	2	-3	0	0	0	5	16	20			

Voronezh Front

Voronezh Front	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	138	99	98	98	86	0	0	127	208	229	356	356	356	356	356				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	387	160	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	13	13	10	10	10	7	7	10	19	31	34	34	34	34	34				
T/AT USED	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12			
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT USED	15	20	0	0	0	0	0	0	0	0	0	0	0	0	0	35			
OTHER USED	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1			
T/AT RECD	0	0	0	0	0	0	0	0	-280	0	0	0	0	0	0	-280			
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	0	-11	0	0	0	0	0	0	-11			

3d Mech Corps

3d Mech Corps	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	488	488	338	560	452	477	461	471	229	215	185	175	215	232	294				
ARTY OH	341	341	325	267	214	150	150	132	132	146	139	155	234	238	238				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	114	114	79	68	48	69	63	71	65	56	49	47	54	55	69				
T/AT USED	0	0	150	158	106	116	16	6	18	14	30	9	6	0	0	629			
ARTY USED	0	0	39	59	53	64	0	19	0	0	6	0	0	0	0	240			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	0	0	35	37	19	19	6	4	8	3	7	2	0	0	0	140			
T/AT RECD	0	0	0	0	0	0	0	16	56	22	0	0	20	17	66	197			
ARTY RECD	0	0	23	0	0	0	0	0	0	14	0	16	79	4	0	136			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	13	13	5	0	0	5	1	16	53			

5th Gds MC

5th Gds MC	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	297	297	297	297	297	297	297	297	218	218	182	252	347	410	410			

ARTY OH	76	76	76	76	76	76	76	76	47	41	25	37	59	79	63	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	105	105	105	105	105	105	105	105	67	67	51	120	150	166	132	
T/AT USED	0	0	0	0	0	0	0	0	79	0	36	0	0	0	0	115
ARTY USED	0	0	0	0	0	0	0	0	29	6	15	5	0	0	16	71
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	0	38	0	16	0	0	12	34	100
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	69	95	63	0	227
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	16	22	20	0	58
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	69	30	28	0	127

100th RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	34	34	34	45	43	43	40	40	40	34	34	34	34	34	34		
ARTY OH	149	138	138	143	148	148	148	148	148	149	149	147	147	131	131		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	569	527	534	591	554	550	550	545	545	548	548	548	548	496	496		
T/AT USED	0	0	0	3	3	0	3	0	0	0	0	0	0	0	0	9	
ARTY USED	0	11	3	1	1	2	0	0	0	1	0	2	0	16	0	37	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	41	0	0	37	4	0	4	0	0	0	0	0	52	0	138	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	3	6	2	2	0	0	0	2	0	0	0	0	0	15	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	7	56	0	0	0	0	0	3	0	0	0	0	0	66	

107th RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	36	36	36	36	36	36	40	38	37	35	33	30	96	96	100		
ARTY OH	212	212	212	212	212	244	244	215	186	173	184	118	110	110	126		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	115	115	115	115	115	75	75	72	69	66	63	60	66	66	86		
T/AT USED	0	0	0	0	0	0	0	1	1	2	2	0	2	0	0	8	
ARTY USED	0	0	0	0	0	7	0	30	30	11	11	0	8	0	0	97	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	39	0	3	3	3	3	0	3	0	0	54	
T/AT RECD	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	8	
ARTY RECD	0	0	0	0	0	41	0	0	0	0	21	0	0	0	17	79	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	

111th RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	28	28	28	28	28	28	28	28	128	138	137	137	137	137	135			
ARTY OH	152	152	152	152	148	148	148	148	109	93	96	95	90	93	91			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	111	111	111	111	111	111	111	111	89	51	103	95	91	103	111			
T/AT USED	0	0	0	0	0	0	0	0	19	0	0	0	0	0	2		21	
ARTY USED	0	0	0	0	4	0	0	0	39	15	21	1	5	1	32		118	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
OTHER USED	0	0	0	0	0	0	0	0	41	38	7	8	4	2	38		138	
T/AT RECD	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0		9	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	23	0	0	4	29		56	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	59	0	0	15	44		118	

13th Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	21	21	21	21	21	21	21	21	16	11	17	17	17	17	17			
ARTY OH	93	93	93	93	93	93	93	93	46	125	51	51	50	46	46			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	80	80	80	80	80	80	80	80	40	82	21	85	37	67	67			
T/AT USED	0	0	0	0	0	0	0	0	5	5	1	0	0	0	0		11	
ARTY USED	0	0	0	0	0	0	0	0	46	48	74	56	58	56	56		394	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
OTHER USED	0	0	0	0	0	0	0	0	40	40	64	48	48	48	48		336	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
ARTY RECD	0	0	0	0	0	0	0	0	0	120	0	56	56	56	56		344	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
OTHER RECD	0	0	0	0	0	0	0	0	0	80	0	112	0	80	48		320	

15th Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	21	21	90	72	24	23	22	20	19	19	19	19	19	19	19			
ARTY OH	93	93	95	93	86	83	85	84	66	47	65	65	64	64	58			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	80	80	112	100	77	74	70	65	61	64	60	58	58	82	80			
T/AT USED	0	0	1	19	1	1	2	2	0	0	0	0	0	0	0	26		
ARTY USED	0	0	0	2	7	5	14	23	19	18	3	1	1	0	5	98		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	12	3	3	4	4	4	4	4	2	0	2	2	44		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	2	0	0	2	15	23	0	0	21	1	0	0	0	64		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	7	0	0	0	25	0	32		

161st RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	24	24	24	368	355	47	28	29	29	17	35	35	33	33	34			

ARTY OH	134	134	134	121	121	114	114	109	119	116	122	122	136	136	129	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	118	118	118	106	103	58	57	31	46	53	60	60	65	66	63	
T/AT USED	0	0	0	0	50	8	0	0	0	12	0	0	2	0	0	72
ARTY USED	0	0	0	13	0	7	0	4	0	3	0	0	0	0	0	27
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	26	2	35	0	26	0	0	0	0	0	0	3	92
T/AT RECD	0	0	0	2	0	0	2	1	1	0	18	0	0	0	1	25
ARTY RECD	0	0	0	0	0	0	0	0	10	0	6	0	14	0	8	38
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	15	7	7	0	4	1	0	34

183d RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	26	26	26	21	19	19	17	14	10	10	10	10	10	10	10		
ARTY OH	150	150	150	136	122	109	96	83	83	64	51	42	42	42	42		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	108	108	96	84	71	59	47	37	37	37	37	37	37	37	37		
T/AT USED	0	0	0	5	1	0	2	3	3	3	3	3	0	0	3	26	
ARTY USED	0	0	9	9	9	13	13	13	13	5	13	13	3	3	13	129	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	12	12	12	12	12	12	12	12	12	12	0	0	12	132	
T/AT RECD	0	0	0	0	0	0	0	0	0	3	3	3	0	0	3	12	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	4	3	3	13	23	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	3	12	12	12	12	0	0	12	63	

184th RD	DAY																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	
T/AT OH	21	21	27	27	27	27	27	29	30	30	27	24	41	41	39		
ARTY OH	191	191	201	201	201	150	148	148	122	136	150	110	115	115	82		
RKT OH	0	0	0	0	0	0	0	0	79	61	43	0	0	0	0		
OTHER OH	96	96	96	96	96	89	81	81	77	77	71	52	59	67	57		
T/AT USED	0	0	0	0	0	0	0	0	0	0	3	2	0	0	1	6	
ARTY USED	0	0	0	0	0	50	2	0	140	6	37	40	0	0	34	309	
RKT USED	0	0	0	0	0	0	0	0	18	18	18	0	0	0	0	54	
OTHER USED	0	0	0	0	0	7	7	0	7	0	5	17	0	0	9	52	
T/AT RECD	0	0	6	0	0	0	0	2	0	0	0	0	0	0	0	8	
ARTY RECD	0	0	9	0	0	0	0	0	114	20	51	0	6	0	0	200	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	14	

204th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	14	14	14	25	25	25	25	25	26	22	21	19	8	8	8				
ARTY OH	98	98	77	88	88	88	88	88	104	81	72	73	41	4	37				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	87	87	87	87	87	87	87	87	62	37	91	69	42	42	42				
T/AT USED	0	0	0	0	0	0	0	0	0	4	1	1	11	0	0				17
ARTY USED	0	0	22	0	0	0	0	0	7	24	9	1	44	0	4				111
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	0	0	0	0	0	0	0	25	25	25	21	30	0	0				126
T/AT RECD	0	0	0	11	0	0	0	0	1	0	0	0	0	0	0				12
ARTY RECD	0	0	0	11	0	0	0	0	23	0	0	2	13	0	0				49
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	79	0	2	0	0				81

206th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	23	30	32	56	56	55	55	54	54	60	60	60	60	60	58				
ARTY OH	152	152	145	145	145	143	143	143	143	143	143	143	143	138	137				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	106	106	109	110	110	99	99	99	99	100	100	100	100	99	103				
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2				2
ARTY USED	0	0	7	0	0	4	0	0	0	0	0	0	0	5	1				17
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	0	2	0	0	11	0	0	0	0	0	0	0	2	0				15
T/AT RECD	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0				8
ARTY RECD	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0				2
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	4	0	0	0	0	0	0	0	0	1	0	0	4				9

213th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	28	159	27	26	25	24	23	23	22	22	21	21	21	21	21				
ARTY OH	93	74	80	75	82	81	90	87	87	87	79	76	76	76	75				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	107	128	100	93	86	79	71	71	66	76	70	82	81	81	81				
T/AT USED	0	12	1	1	1	1	1	0	1	0	1	0	1	0	0				20
ARTY USED	0	21	1	5	7	1	5	3	0	0	8	3	0	0	1				55
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	2	7	7	7	7	7	0	5	0	6	0	1	0	0				49
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
ARTY RECD	0	2	7	0	14	0	14	0	0	0	0	0	0	0	0				37
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	0	0	10	0	12	0	0	0				22

219th RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	32	32	32	57	55	32	30	28	28	28	28	28	28	28	28			
ARTY OH	156	156	156	156	156	156	96	116	116	116	116	107	106	106	116			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	100	100	100	101	101	100	90	81	81	81	81	81	81	81	81			
T/AT USED	0	0	0	2	2	0	2	2	2	2	2	2	0	0	1	17		
ARTY USED	0	0	0	0	0	0	20	20	20	20	20	15	0	0	10	125		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	9	9	9	9	9	7	0	0	5	57		
T/AT RECD	0	0	0	0	0	0	0	0	2	2	2	2	0	0	1	9		
ARTY RECD	0	0	0	0	0	0	0	0	20	20	20	15	0	0	10	85		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	9	9	9	7	0	0	5	39		

237th RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	64	64	64	45	45	16	16	16	16	16	16	16	16	16	16			
ARTY OH	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	76	76	76	75	75	74	74	74	74	74	74	74	74	74	74			
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

270th RD	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	31	31	31	31	31	31	31	31	53	61	82	82	82	81	70		
ARTY OH	129	129	129	129	129	129	264	107	86	70	55	52	50	51	46		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	111	111	111	111	111	111	111	111	87	54	120	112	108	120	122		
T/AT USED	0	0	0	0	0	0	0	0	20	20	1	0	0	0	12	53	
ARTY USED	0	0	0	0	0	0	0	22	22	16	23	9	6	1	18	117	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	0	0	0	0	0	40	40	7	8	4	2	44	145	
T/AT RECD	0	0	0	0	0	0	0	0	22	28	22	0	0	0	0	72	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	8	6	4	2	12	32	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	10	7	73	0	0	15	44	149	

305th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	26	44	44	44	44	39	33	28	81	81	78	108	41	40	40				
ARTY OH	153	153	153	153	133	109	84	71	58	58	45	169	169	169	169				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	89	0	0				
OTHER OH	111	112	112	112	112	93	75	62	57	57	45	156	151	148	148				
T/AT USED	0	0	0	0	0	5	5	5	3	0	3	0	0	0	0				21
ARTY USED	0	0	0	0	20	24	24	13	13	0	13	0	0	0	0				107
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0				2
OTHER USED	0	0	0	0	0	18	18	12	12	0	12	0	0	0	0				72
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0				30
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	123	0	0	0				123
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	111	0	0	0				111

309th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	21	21	26	133	131	92	83	81	23	20	20	18	16	14	14				
ARTY OH	122	122	134	134	122	122	122	110	104	92	86	74	62	50	42				
RKT OH	0	0	0	79	45	45	90	90	81	0	0	0	0	0	0				
OTHER OH	104	104	104	126	126	120	114	109	92	83	78	73	68	63	58				
T/AT USED	0	0	0	0	2	39	9	2	0	2	0	2	2	2	0				60
ARTY USED	0	0	0	0	12	0	0	12	6	12	5	12	12	12	8				91
RKT USED	0	0	0	34	34	0	0	0	9	0	0	0	0	0	0				77
OTHER USED	0	0	0	0	0	6	6	5	5	5	5	5	5	5	5				52
T/AT RECD	0	0	5	0	0	0	0	0	-58	0	0	0	0	0	0				-53
ARTY RECD	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0				12
RKT RECD	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0				45
OTHER RECD	0	0	0	0	0	0	0	0	-12	0	0	0	0	0	0				-12

36th Gds RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	34	127	120	32	32	32	32	32	32	32	32	32	32	32	32				
ARTY OH	115	104	101	100	102	98	105	111	116	114	117	117	117	117	116				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	121	129	125	113	113	111	114	113	113	113	107	107	107	115	115				
T/AT USED	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0				7
ARTY USED	1	11	3	1	3	4	1	0	0	1	2	0	0	1	0				28
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	1	4	3	0	2	0	1	0	0	6	0	0	0	0				17
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
ARTY RECD	0	0	0	0	5	0	7	7	5	0	5	0	0	0	0				29
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	3	0	0	0	0	0	0	8	0				11

375th RD

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	241	230	221	210	200	188	52	50	41	28	28	27	27	27	27				

ARTY OH	332	227	152	229	111	108	106	103	84	84	79	77	77	77	77	
RKT OH	180	160	154	147	143	137	0	0	0	0	0	0	0	0	0	
OTHER OH	171	157	142	127	120	117	93	92	78	76	76	75	75	75	75	
T/AT USED	0	9	9	9	11	11	1	1	9	1	1	1	0	0	0	63
ARTY USED	20	106	75	42	3	3	3	3	19	19	3	3	0	0	0	299
RKT USED	15	20	6	7	4	6	0	0	0	0	0	0	0	0	0	58
OTHER USED	0	15	15	15	2	2	1	1	15	1	1	1	0	0	0	69
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	120	0	0	0	0	0	0	0	0	0	0	0	120
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

42d Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	17	17	17	17	17	17	17	17	11	11	11	11	11	11	9			
ARTY OH	89	89	89	89	89	89	89	89	49	42	49	45	54	49	51			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	80	80	80	80	80	80	80	80	96	88	80	72	64	56	48	40		
T/AT USED	0	0	0	0	0	0	0	0	6	0	0	0	0	0	2	8		
ARTY USED	0	0	0	0	0	0	0	0	40	7	0	5	0	5	2	59		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	0	0	0	0	0	0	0	8	8	8	8	8	8	8	56		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	8	0	10	0	5	23		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16		

51st Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	38	34	30	26	92	88	85	81	11	11	11	11	11	11	4			
ARTY OH	169	148	128	107	86	93	63	33	23	23	24	24	24	24	26			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	131	119	107	95	87	78	66	54	48	48	48	48	48	48	48			
T/AT USED	0	4	4	4	25	4	4	4	0	0	0	0	0	0	6	55		
ARTY USED	0	21	21	21	21	30	30	30	0	0	0	0	0	0	1	175		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER USED	0	12	12	12	12	12	12	12	0	0	0	0	0	0	0	84		
T/AT RECD	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	39		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

52d Gds RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	132	93	143	150	100	40	32	14	17	11	11	14	14	16	16			
ARTY OH	184	159	134	110	85	60	56	53	49	79	79	93	93	106	106			
RKT OH	180	117	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	142	130	123	114	106	80	67	50	36	113	113	182	182	182	182			
T/AT USED	0	38	40	20	20	20	8	0	0	6	0	0	0	0	0			152
ARTY USED	0	25	25	25	25	25	4	4	4	0	0	0	0	0	0			137
RKT USED	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0			51
OTHER USED	0	12	10	8	8	8	13	13	13	0	0	0	0	0	0			85
T/AT RECD	0	0	0	32	-30	0	0	0	3	0	0	2	0	2	0			9
ARTY RECD	0	0	0	0	0	0	0	0	0	31	0	14	0	13	0			58
RKT RECD	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0			-12
OTHER RECD	0	0	0	0	0	0	0	0	0	77	0	68	0	0	0			145

66th Gds RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	21	21	21	21	21	21	21	17	14	11	16	16	12	12	12			
ARTY OH	111	11	111	111	11	111	111	89	76	46	69	69	49	37	37			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	72	72	72	72	72	72	72	61	53	40	60	60	49	62	62			
T/AT USED	0	0	0	0	1	0	0	3	3	3	16	0	4	0	0			30
ARTY USED	0	0	0	0	0	0	0	22	24	22	22	0	20	12	0			122
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
OTHER USED	0	0	0	0	0	0	0	11	11	11	11	0	10	0	0			54
T/AT RECD	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0			9
ARTY RECD	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0			45
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	31	0	0	13	0			44

67th Gds RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	150	71	94	60	55	50	46	18	17	17	17	18	18	18	18			
ARTY OH	179	160	141	139	120	101	83	64	64	64	64	64	64	64	64			
RKT OH	0	0	0	0	0	0	105	96	0	0	0	180	162	144	126			
OTHER OH	200	182	167	149	134	120	108	93	90	90	90	93	93	93	93			
T/AT USED	0	32	8	1	5	5	5	5	0	0	0	0	0	0	0			61
ARTY USED	0	19	19	3	19	19	19	19	0	0	0	0	0	0	0			117
RKT USED	0	0	0	0	0	0	8	8	0	0	0	18	18	18	18			88
OTHER USED	0	19	15	1	15	15	15	15	0	0	0	0	0	0	0			95
T/AT RECD	0	-16	0	0	0	0	0	0	0	0	0	0	0	0	0			-16
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	154	0	0	0			154
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0

71st Gds RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	102	110	66	66	66	57	18	18	22	21	21	21	21	22	22			

ARTY OH	157	155	154	154	15	104	54	54	78	57	57	7	57	103	103	
RKT OH	180	164	301	286	274	250	0	0	0	0	0	0	0	0	0	
OTHER OH	142	125	105	105	105	78	42	42	83	70	70	70	70	97	97	
T/AT USED	0	34	14	0	0	9	9	0	0	0	0	0	0	0	0	66
ARTY USED	0	2	2	0	0	50	54	0	21	21	0	0	0	0	0	150
RKT USED	0	15	24	15	12	24	0	0	0	0	0	0	0	0	0	90
OTHER USED	0	20	20	0	0	28	28	0	14	14	0	0	0	0	0	124
T/AT RECD	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	5
ARTY RECD	0	0	0	0	0	0	0	0	45	0	0	0	0	46	0	91
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	55	0	0	0	0	27	0	82

72d Gds RD	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	28	28	28	28	28	28	27	27	27	32	32	32	32	5	33				
ARTY OH	119	91	92	59	90	94	117	108	101	88	88	88	88	88	113				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	87	81	74	67	95	120	146	145	119	92	114	114	114	114	114				
T/AT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ARTY USED	3	27	18	32	2	3	3	8	7	18	0	0	0	0	4	125			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	1	34	34	34	0	2	1	1	26	26	0	0	0	0	0	159			
T/AT RECD	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	6			
ARTY RECD	0	0	18	0	33	7	26	0	0	6	0	0	0	0	29	119			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	28	28	28	28	28	28	0	0	0	22	0	0	0	0	190			

73d Gds RD	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	26	136	205	179	178	139	94	94	98	98	99	99	34	34	34				
ARTY OH	94	89	86	90	95	103	98	91	79	82	79	90	89	88	84				
RKT OH	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	120	156	123	96	78	64	34	60	62	44	26	26	22	22	54				
T/AT USED	0	0	41	0	0	0	1	0	0	0	2	0	0	0	0	44			
ARTY USED	0	12	25	7	3	11	13	15	12	21	15	1	1	1	4	141			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	0	0	22	19	19	26	18	18	18	18	18	0	0	0	18	194			
T/AT RECD	6	0	0	29	0	22	0	0	0	0	2	0	0	0	0	59			
ARTY RECD	0	7	22	10	8	20	7	8	0	24	12	12	0	0	0	130			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	24	0	0	0	0	10	0	44	18	0	0	0	0	0	50	146			

78th Gds RD	DAY															Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
T/AT OH	23	21	18	16	44	15	15	15	15	15	21	21	21	21	26	
ARTY OH	97	59	66	78	95	95	94	101	96	78	76	76	75	75	75	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	81	76	70	65	73	56	51	51	46	46	80	80	80	80	96	
T/AT USED	0	2	2	2	18	0	0	0	0	0	0	0	0	0	0	24
ARTY USED	0	38	0	0	2	0	6	2	5	18	11	1	0	0	0	83
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	5	5	5	14	5	5	0	5	0	0	0	0	0	0	44
T/AT RECD	0	0	0	0	0	0	0	0	0	0	7	0	0	0	4	11
ARTY RECD	0	0	7	12	19	0	5	10	0	0	10	0	0	0	0	63
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	34	0	0	0	16	50

81st Gds RD	DAY															Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
T/AT OH	28	99	81	89	41	11	11	9	9	16	16	16	26	26	26	
ARTY OH	167	135	94	104	78	52	52	19	19	46	46	46	93	93	93	
RKT OH	176	283	108	85	122	119	116	0	0	0	0	0	0	0	0	
OTHER OH	94	89	68	58	41	25	11	6	6	44	40	40	60	60	60	
T/AT USED	0	0	26	48	48	6	0	0	0	0	0	0	0	0	0	128
ARTY USED	5	27	39	0	26	26	0	0	0	0	0	0	0	0	0	123
RKT USED	0	77	27	23	21	3	3	0	0	0	0	0	0	0	0	154
OTHER USED	0	14	14	16	16	14	14	14	0	0	3	0	0	0	0	105
T/AT RECD	0	0	0	0	0	0	0	0	0	6	0	0	11	0	0	17
ARTY RECD	0	0	0	10	0	0	0	0	0	28	0	0	65	0	0	103
RKT RECD	0	0	-10	0	59	0	0	0	0	0	0	0	0	0	0	49
OTHER RECD	0	0	0	0	0	0	0	14	0	38	0	0	19	0	0	71

89th Gds RD	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	38	38	38	38	33	33	33	28	22	17	12	7	2	2	2				
ARTY OH	169	169	169	169	151	151	151	132	113	95	76	57	38	38	38				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	131	131	131	131	119	119	119	107	95	83	72	60	48	48	48				
T/AT USED	0	0	0	0	5	0	0	5	5	5	5	5	5	0	0	35			
ARTY USED	0	0	0	0	19	0	0	19	19	19	19	19	19	0	0	133			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	0	0	0	0	12	0	0	12	12	12	12	12	12	0	0	84			
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

90th Gds RD	DAY																	
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total		
T/AT OH	56	47	37	27	27	19	10	10	10	28	19	14	14	14	14			

ARTY OH	186	172	158	108	112	59	42	42	42	150	90	91	77	77	106	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	112	105	98	83	84	65	48	46	45	45	27	27	27	27	62	
T/AT USED	0	9	9	10	0	9	9	0	0	0	9	5	0	0	0	60
ARTY USED	0	14	14	49	50	16	16	0	0	0	60	1	14	0	0	234
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	7	7	15	1	17	17	2	2	0	18	0	0	0	0	86
T/AT RECD	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17
ARTY RECD	0	0	0	0	0	0	0	0	0	107	0	0	0	0	30	137
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35

92d Gds RD	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	34	34	34	34	34	32	31	131	129	128	24	22	21	21	21		
ARTY OH	129	129	129	129	129	124	118	113	108	103	98	93	93	93	93		
RKT OH	0	0	0	0	0	0	0	0	0	107	103	91	0	0	0		
OTHER OH	143	143	143	143	143	134	125	133	124	118	92	83	80	80	80		
T/AT USED	0	0	0	0	0	2	2	12	2	2	2	2	0	0	0	24	
ARTY USED	0	0	0	0	0	5	5	5	5	5	5	5	0	0	0	35	
RKT USED	0	0	0	0	0	0	0	0	0	4	4	12	0	0	0	20	
OTHER USED	0	0	0	0	0	9	9	10	9	9	9	50	0	0	0	105	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

93d Gds RD	DAY																Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
T/AT OH	34	34	34	27	27	19	12	12	10	6	8	8	12	12	12		
ARTY OH	129	129	129	96	96	63	30	30	47	31	23	23	42	42	25		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	143	143	143	110	110	77	45	45	40	36	40	40	48	48	48		
T/AT USED	0	0	0	7	0	7	7	0	2	4	0	0	0	0	0	27	
ARTY USED	0	0	0	33	0	33	33	0	0	16	8	0	0	0	17	140	
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER USED	0	0	0	33	0	33	33	0	5	4	0	0	0	0	0	108	
T/AT RECD	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	7	
ARTY RECD	0	0	0	0	0	0	0	0	17	0	0	0	19	0	0	36	
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER RECD	0	0	0	0	0	0	0	0	0	0	4	0	8	0	0	12	

94th Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	34	34	49	49	130	116	108	93	17	19	21	21	21	21	20			
ARTY OH	129	129	160	160	160	135	110	85	60	113	113	113	98	98	74			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER OH	143	143	143	143	152	138	124	111	90	57	58	58	55	55	88			
T/AT USED	0	0	0	0	7	15	8	15	8	0	0	0	0	0	1			
ARTY USED	0	0	0	0	0	25	25	25	25	0	0	0	14	0	24			
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER USED	0	0	0	0	1	14	13	14	13	32	0	0	3	0	0			
T/AT RECD	0	0	15	0	0	0	0	0	0	2	1	0	0	0	0			
ARTY RECD	0	0	32	0	0	0	0	0	0	56	0	0	0	0	0			
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
OTHER RECD	0	0	0	0	0	0	0	0	0	0	1	0	0	0	33			

95th Gds RD	DAY															Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
T/AT OH	32	32	32	32	32	32	32	21	32	19	6	6	6	6		
ARTY OH	114	139	139	139	139	139	139	93	139	83	28	28	28	28		
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
OTHER OH	120	120	120	120	120	120	120	80	120	72	24	24	24	24		
T/AT USED	0	0	0	0	0	0	0	11	11	13	13	0	0	0	11	59
ARTY USED	0	0	0	0	0	0	0	46	46	56	56	0	0	0	46	250
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	0	0	40	40	48	48	0	0	0	40	216
T/AT RECD	0	0	0	0	0	0	0	0	21	0	0	0	0	0	11	32
ARTY RECD	0	0	0	0	0	0	0	0	93	0	0	0	0	0	46	139
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	80	0	0	0	0	0	40	120

97th Gds RD	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	32	32	32	32	32	32	32	21	32	21	11	12	12	11	11			
ARTY OH	139	139	139	139	139	139	139	93	139	93	46	46	46	46	16			
RKT OH	0	0	0	0	0	0	0	0	0	0	0	180	175	0	0			
OTHER OH	120	120	120	120	120	120	120	80	120	80	80	83	83	80	80			
T/AT USED	0	0	0	0	0	0	0	12	11	11	11	11	11	11	11	89		
ARTY USED	0	0	0	0	0	0	0	46	46	46	46	46	46	46	46	368		
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4		
OTHER USED	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40	320		
T/AT RECD	0	0	0	0	0	0	0	0	21	0	0	11	11	11	11	65		
ARTY RECD	0	0	0	0	0	0	0	0	93	0	0	46	46	46	46	277		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	172	0	0	0	172		
OTHER RECD	0	0	0	0	0	0	0	0	80	0	40	40	40	40	40	280		

10th TC	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	377	377	377	377	377	287	272	264	258	255	201	197	197	197	197			

ARTY OH	118	118	118	118	118	94	81	58	57	55	50	50	50	45	45	
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER OH	116	116	116	116	116	99	89	80	78	78	58	57	57	57	57	
T/AT USED	0	0	0	0	0	90	16	7	6	3	54	4	0	0	1	181
ARTY USED	0	0	0	0	0	24	13	23	1	3	5	0	0	5	0	74
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER USED	0	0	0	0	0	17	10	9	2	1	20	1	0	0	0	60
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

18th TC	DAY																	Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
T/AT OH	272	272	272	272	272	272	272	273	182	92	273	273	454	454	181			
ARTY OH	89	89	89	89	89	89	89	89	74	59	59	59	59	59	30			
RKT OH	0	0	0	0	0	0	0	107	89	42	33	33	42	41	0			
OTHER OH	96	96	96	96	96	96	96	99	67	35	99	99	99	99	64			
T/AT USED	0	0	0	0	0	0	0	0	91	91	0	0	0	0	272	454		
ARTY USED	0	0	0	0	0	0	0	0	15	15	0	0	0	0	30	60		
RKT USED	0	0	0	0	0	0	0	28	18	47	9	0	0	1	0	103		
OTHER USED	0	0	0	0	0	0	0	0	32	32	0	0	0	0	32	96		
T/AT RECD	0	0	0	0	0	0	0	0	0	0	181	0	181	0	0	362		
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	64		

29th TC	DAY															Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
T/AT OH	305	305	305	305	305	305	306	306	217	216	215	215	417	315	253	
ARTY OH	59	59	59	59	59	59	59	59	40	40	40	40	79	59	47	
RKT OH	0	0	0	0	0	0	180	180	157	130	88	70	49	180	150	
OTHER OH	56	56	56	56	56	56	59	59	41	41	41	41	78	60	48	
T/AT USED	0	0	0	0	0	0	0	0	103	1	1	1	1	103	62	272
ARTY USED	0	0	0	0	0	0	0	0	20	0	0	0	0	20	12	52
RKT USED	0	0	0	0	0	0	0	0	22	27	42	18	22	25	30	186
OTHER USED	0	0	0	0	0	0	0	0	19	0	0	0	0	18	11	48
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	203	0	0	203
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	40
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	156	0	156
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	37

2d Gds TC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	606	606	157	362	276	276	193	192	126	125	26	134	167	300	225				
ARTY OH	207	207	47	118	89	89	59	59	35	35	9	47	59	106	80				
RKT OH	0	0	0	0	0	0	0	107	93	81	64	64	60	55	15				
OTHER OH	220	220	51	127	96	96	65	68	43	42	12	53	66	88	88				
T/AT USED	0	0	449	268	85	0	83	2	67	0	75	0	0	0	75				1104
ARTY USED	0	0	160	95	30	0	30	0	24	0	27	0	0	0	27				393
RKT USED	0	0	0	0	0	0	0	28	13	12	18	0	3	5	26				105
OTHER USED	0	0	169	100	31	0	31	0	25	0	28	0	0	28	0				412
T/AT RECD	0	0	0	466	0	0	0	0	0	0	0	108	33	133	0				740
ARTY RECD	0	0	0	166	0	0	0	0	0	0	0	38	12	47	0				263
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	176	0	0	0	0	0	0	0	41	13	50	0				280

2d TC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	210	210	210	210	210	203	135	130	97	68	68	68	463	309	239				
ARTY OH	59	59	59	59	59	58	38	37	29	22	22	22	151	114	77				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	63	63	63	63	63	59	39	37	27	18	18	18	125	98	76				
T/AT USED	0	0	0	0	0	7	68	5	33	28	0	0	0	154	69				364
ARTY USED	0	0	0	0	0	2	19	1	8	7	0	0	0	38	37				112
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	0	0	0	0	4	20	3	10	9	0	0	0	27	22				95
T/AT RECD	0	0	0	0	0	0	0	0	0	0	0	0	395	0	0				395
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	129	0	0				129
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	107	0	0				107

31st TC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	212	210	210	193	144	274	268	137	128	115	90	89	64	64	64				
ARTY OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
RKT OH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
OTHER OH	42	41	41	60	43	26	23	19	18	18	10	10	8	8	8				
T/AT USED	0	0	0	76	49	20	25	4	11	11	25	0	0	0	0				221
ARTY USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT USED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER USED	0	0	0	13	16	4	2	1	1	1	8	0	0	0	0				46
T/AT RECD	0	0	0	0	0	0	20	0	1	0	0	0	0	0	0				21
ARTY RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0

5th Gds TC

	DAY																		Total
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
T/AT OH	432	432	432	324	279	270	270	259	249	309	184	184	166	166	366				

ARTY OH	137	137	137	109	97	94	94	91	89	103	59	59	59	59	130	
RKT OH	0	0	0	0	0	0	0	0	0	72	72	54	0	0	0	
OTHER OH	94	94	94	89	84	78	78	73	73	77	72	72	68	68	68	
T/AT USED	0	0	0	108	46	9	0	10	10	4	125	0	0	0	0	312
ARTY USED	0	0	0	29	12	3	0	3	3	0	44	0	0	0	0	94
RKT USED	0	0	0	0	0	0	0	0	0	9	0	18	0	0	0	27
OTHER USED	0	0	0	5	5	5	0	5	50	0	5	0	0	0	0	75
T/AT RECD	0	0	0	0	0	0	0	0	0	42	0	0	0	0	200	242
ARTY RECD	0	0	0	0	0	0	0	0	0	15	0	0	0	0	71	86
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	DAY																		
6th TC	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total			
T/AT OH	301	301	302	213	348	363	348	332	361	498	356	348	396	396	390				
ARTY OH	59	59	59	59	118	84	49	15	15	15	118	118	118	84	84				
RKT OH	0	0	162	151	140	129	287	108	99	90	27	54	54	54	54				
OTHER OH	109	109	112	112	115	111	89	61	62	63	35	35	114	114	114				
T/AT USED	0	0	0	88	91	61	16	6	0	3	14	8	0	0	6		293		
ARTY USED	0	0	0	0	0	34	34	34	0	0	34	0	0	0	0		136		
RKT USED	0	0	9	11	11	11	11	11	9	9	63	0	0	0	0		145		
OTHER USED	0	0	0	0	0	5	25	25	0	0	25	0	0	0	0		80		
T/AT RECD	0	0	0	0	212	48	0	0	0	0	0	0	48	0	0		308		
ARTY RECD	0	0	0	0	59	0	0	0	0	0	138	0	0	34	0		231		
RKT RECD	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0		27		
OTHER RECD	0	0	0	0	0	0	0	0	0	0	0	0	79	0	0		79		

APPENDIX L

DAILY LOCATIONS OF GERMAN AND SOVIET UNITS

L-1. INTRODUCTION. This appendix contains data tables showing daily unit locations for individual German and Soviet units in the KDB. As noted in Chapter 2 and Chapter 8, each unit's location on a day was computed as the arithmetic average of the locations of the KDB reference points and flank location points, excluding the HQ location point, which are listed in the KDB for that unit on that day. Using a fitting equation, these locations were converted from UTM locations into locations expressed in terms of latitude and longitude. The HQ location was not used in the calculation of unit location, unless it was the only point listed, because the HQ often is positioned noticeably behind (to the rear of) the body of other points comprising the unit in the KDB. There is no clear "best way" to define and compute a KDB unit location. The author selected the one used herein as suitable for the statistics derived from it. Readers may define and compute their own unit locations using the latitude-longitude location data for all KDB reference points which are contained in the CD ROM on the Battle of Kursk (Ref 4).

L-2. STRUCTURE OF DATA TABLES. Tables L-1 and L-2 show daily unit locations for German and Soviet units, respectively. A daily location is only shown for a unit for if at least one reference point is recorded in the KDB on that day. The units in the tables are from the units in Tables 3-1 and 3-2 of Chapter 3. Each line in Tables L-1 and L-2 shows the following data:

a. **Date** is a Julian date (e.g. 19430704 denotes 4 July 1943).

b. **Unit Name** is taken from the Unit ID column of Tables 3-1 and 3-2.

c. In the **Deg Lat** column, N denotes north latitude, and the number immediately following it is the degrees of (north) latitude for the unit location, as defined above. In the **Deg Long** column, E denotes east longitude. Immediately following it is the associated degrees (east) longitude for the unit location. No minutes and seconds are computed; instead, degrees are expressed to three decimal places.

d. The **Nr Pts** column gives the total number of KDB reference points recorded for that unit on that day in the KDB.

Any unrecognized errors in data entry for individual points during construction of the KDB will have been carried over into unit location computations listed here.

Table L-1. Daily Locations of German Units in the KDB
(page 1 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430704	3rd Pz Corps	N 50.563	E 36.628	16
19430704	48th Pz Corps	N 50.535	E 35.884	1
19430704	4th Panzer Army	N 50.726	E 35.878	15
19430704	52nd Corps	N 50.723	E 35.607	17
19430704	Corps Raus	N 50.436	E 36.735	17
19430704	II SS Pz Corps	N 50.578	E 36.287	1
19430704	Provisional Army Kempf	N 50.485	E 36.698	13
19430704	106th ID	N 50.462	E 36.701	10
19430704	167th ID	N 50.747	E 36.301	12
19430704	168th ID	N 50.532	E 36.505	2
19430704	255th ID	N 50.703	E 35.749	16
19430704	320th ID	N 50.414	E 36.765	11
19430704	332nd ID	N 50.722	E 35.990	10
19430704	57th ID	N 50.746	E 35.390	11
19430704	11th PzD	N 50.752	E 36.187	7
19430704	19th PzD	N 50.569	E 36.617	8
19430704	3rd PzD	N 50.741	E 36.093	4
19430704	6th PzD	N 50.614	E 36.611	11
19430704	7th PzD	N 50.521	E 36.644	15
19430704	DR SS PzGrD	N 50.717	E 36.446	9
19430704	GD PzGrD	N 50.741	E 36.143	7
19430704	LSSAH PzGrD	N 50.735	E 36.382	10
19430704	T SS PzGrD	N 50.684	E 36.518	8
19430705	3rd Pz Corps	N 50.563	E 36.628	16
19430705	48th Pz Corps	N 50.681	E 36.151	1
19430705	4th Panzer Army	N 50.740	E 36.009	15
19430705	52nd Corps	N 50.723	E 35.607	17
19430705	Corps Raus	N 50.448	E 36.738	14
19430705	II SS Pz Corps	N 50.578	E 36.287	1
19430705	Provisional Army Kempf	N 50.485	E 36.710	14
19430705	106th ID	N 50.459	E 36.702	10
19430705	167th ID	N 50.818	E 36.246	9
19430705	168th ID	N 50.532	E 36.505	2
19430705	255th ID	N 50.703	E 35.749	16
19430705	320th ID	N 50.429	E 36.781	11
19430705	332nd ID	N 50.732	E 35.995	11
19430705	57th ID	N 50.746	E 35.390	11
19430705	11th PzD	N 50.772	E 36.187	10
19430705	19th PzD	N 50.571	E 36.617	7
19430705	3rd PzD	N 50.775	E 36.092	5
19430705	6th PzD	N 50.622	E 36.612	11
19430705	7th PzD	N 50.521	E 36.644	15
19430705	DR SS PzGrD	N 50.717	E 36.446	9
19430705	GD PzGrD	N 50.785	E 36.136	9
19430705	LSSAH PzGrD	N 50.735	E 36.382	10

Table L-1. Daily Locations of German Units in the KDB
(page 2 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430705	T SS PzGrD	N 50.684	E 36.518	8
19430706	3rd Pz Corps	N 50.613	E 36.641	10
19430706	48th Pz Corps	N 50.681	E 36.151	1
19430706	4th Panzer Army	N 50.758	E 36.113	15
19430706	52nd Corps	N 50.720	E 35.696	17
19430706	Corps Raus	N 50.452	E 36.756	18
19430706	II SS Pz Corps	N 50.578	E 36.287	1
19430706	Provisional Army Kempf	N 50.518	E 36.705	13
19430706	106th ID	N 50.480	E 36.716	11
19430706	167th ID	N 50.818	E 36.246	9
19430706	168th ID	N 50.532	E 36.505	2
19430706	255th ID	N 50.707	E 35.803	17
19430706	320th ID	N 50.428	E 36.789	10
19430706	332nd ID	N 50.773	E 36.049	9
19430706	57th ID	N 50.746	E 35.390	11
19430706	11th PzD	N 50.797	E 36.195	16
19430706	19th PzD	N 50.581	E 36.653	11
19430706	3rd PzD	N 50.812	E 36.102	6
19430706	6th PzD	N 50.645	E 36.625	8
19430706	7th PzD	N 50.537	E 36.677	8
19430706	DR SS PzGrD	N 50.772	E 36.468	7
19430706	GD PzGrD	N 50.808	E 36.154	10
19430706	LSSAH PzGrD	N 50.807	E 36.454	6
19430706	T SS PzGrD	N 50.725	E 36.527	16
19430707	3rd Pz Corps	N 50.595	E 36.760	9
19430707	48th Pz Corps	N 50.681	E 36.151	1
19430707	4th Panzer Army	N 50.776	E 36.219	15
19430707	52nd Corps	N 50.735	E 35.814	18
19430707	Corps Raus	N 50.486	E 36.794	17
19430707	II SS Pz Corps	N 50.578	E 36.287	1
19430707	Provisional Army Kempf	N 50.538	E 36.733	15
19430707	106th ID	N 50.529	E 36.796	13
19430707	167th ID	N 50.807	E 36.357	12
19430707	168th ID	N 50.625	E 36.603	10
19430707	255th ID	N 50.715	E 35.897	15
19430707	320th ID	N 50.428	E 36.789	10
19430707	332nd ID	N 50.787	E 36.050	5
19430707	57th ID	N 50.733	E 35.431	16
19430707	11th PzD	N 50.852	E 36.341	14
19430707	19th PzD	N 50.589	E 36.642	7
19430707	3rd PzD	N 50.864	E 36.273	5
19430707	6th PzD	N 50.580	E 36.772	11

Table L-1. Daily Locations of German Units in the KDB
(page 3 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430707	7th PzD	N 50.552	E 36.765	10
19430707	DR SS PzGrD	N 50.873	E 36.547	13
19430707	GD PzGrD	N 50.860	E 36.232	13
19430707	LSSAH PzGrD	N 50.871	E 36.471	7
19430707	T SS PzGrD	N 50.748	E 36.569	14
19430708	3rd Pz Corps	N 50.631	E 36.781	12
19430708	48th Pz Corps	N 50.787	E 36.185	1
19430708	4th Panzer Army	N 50.831	E 36.274	15
19430708	52nd Corps	N 50.750	E 35.799	18
19430708	Corps Raus	N 50.480	E 36.794	15
19430708	II SS Pz Corps	N 50.788	E 36.468	1
19430708	Provisional Army Kempf	N 50.521	E 36.682	3
19430708	106th ID	N 50.530	E 36.801	10
19430708	167th ID	N 50.832	E 36.359	1
19430708	168th ID	N 50.625	E 36.603	10
19430708	255th ID	N 50.717	E 35.896	15
19430708	320th ID	N 50.428	E 36.789	10
19430708	332nd ID	N 50.825	E 36.073	9
19430708	57th ID	N 50.733	E 35.431	16
19430708	11th PzD	N 50.900	E 36.376	16
19430708	19th PzD	N 50.617	E 36.705	11
19430708	3rd PzD	N 50.894	E 36.273	7
19430708	6th PzD	N 50.633	E 36.764	9
19430708	7th PzD	N 50.613	E 36.825	11
19430708	DR SS PzGrD	N 50.914	E 36.590	14
19430708	GD PzGrD	N 50.894	E 36.317	13
19430708	LSSAH PzGrD	N 50.942	E 36.507	15
19430708	T SS PzGrD	N 50.779	E 36.590	16
19430709	3rd Pz Corps	N 50.677	E 36.790	7
19430709	48th Pz Corps	N 50.787	E 36.185	1
19430709	4th Panzer Army	N 50.843	E 36.265	15
19430709	52nd Corps	N 50.750	E 35.798	18
19430709	Corps Raus	N 50.508	E 36.800	18
19430709	II SS Pz Corps	N 50.788	E 36.468	1
19430709	Provisional Army Kempf	N 50.559	E 36.773	15
19430709	106th ID	N 50.551	E 36.809	15
19430709	167th ID	N 50.766	E 36.476	1
19430709	168th ID	N 50.591	E 36.666	12
19430709	255th ID	N 50.718	E 35.899	15
19430709	320th ID	N 50.428	E 36.789	10
19430709	332nd ID	N 50.823	E 36.064	10
19430709	57th ID	N 50.733	E 35.431	16
19430709	11th PzD	N 50.941	E 36.377	15

Table L-1. Daily Locations of German Units in the KDB
(page 4 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430709	19th PzD	N 50.604	E 36.725	15
19430709	3rd PzD	N 50.872	E 36.254	11
19430709	6th PzD	N 50.709	E 36.804	7
19430709	7th PzD	N 50.613	E 36.825	11
19430709	DR SS PzGrD	N 50.962	E 36.551	16
19430709	GD PzGrD	N 50.936	E 36.293	11
19430709	LSSAH PzGrD	N 50.952	E 36.445	14
19430709	T SS PzGrD	N 50.779	E 36.590	16
19430710	3rd Pz Corps	N 50.677	E 36.790	7
19430710	48th Pz Corps	N 50.799	E 36.193	1
19430710	4th Panzer Army	N 50.853	E 36.185	15
19430710	52nd Corps	N 50.754	E 35.792	16
19430710	Corps Raus	N 50.481	E 36.797	16
19430710	II SS Pz Corps	N 50.788	E 36.468	1
19430710	Provisional Army Kempf	N 50.587	E 36.765	15
19430710	106th ID	N 50.533	E 36.805	12
19430710	167th ID	N 50.779	E 36.581	16
19430710	168th ID	N 50.591	E 36.666	12
19430710	198th ID	N 50.584	E 36.705	6
19430710	255th ID	N 50.718	E 35.899	15
19430710	320th ID	N 50.428	E 36.789	10
19430710	332nd ID	N 50.827	E 36.097	9
19430710	57th ID	N 50.733	E 35.431	16
19430710	11th PzD	N 51.033	E 36.343	12
19430710	19th PzD	N 50.600	E 36.722	18
19430710	3rd PzD	N 50.981	E 36.260	11
19430710	6th PzD	N 50.690	E 36.760	11
19430710	7th PzD	N 50.627	E 36.825	7
19430710	DR SS PzGrD	N 50.938	E 36.575	11
19430710	GD PzGrD	N 50.963	E 36.283	14
19430710	LSSAH PzGrD	N 50.955	E 36.403	14
19430710	T SS PzGrD	N 51.001	E 36.484	13
19430711	3rd Pz Corps	N 50.727	E 36.812	9
19430711	48th Pz Corps	N 50.799	E 36.193	1
19430711	4th Panzer Army	N 50.863	E 36.155	15
19430711	52nd Corps	N 50.777	E 35.875	18
19430711	Corps Raus	N 50.508	E 36.806	18
19430711	II SS Pz Corps	N 50.788	E 36.468	1
19430711	Provisional Army Kempf	N 50.571	E 36.786	15
19430711	106th ID	N 50.529	E 36.806	12
19430711	167th ID	N 50.780	E 36.581	14
19430711	168th ID	N 50.635	E 36.662	11
19430711	198th ID	N 50.587	E 36.824	10
19430711	255th ID	N 50.717	E 35.886	13

Table L-1. Daily Locations of German Units in the KDB
(page 5 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430711	320th ID	N 50.428	E 36.789	10
19430711	332nd ID	N 50.848	E 36.122	13
19430711	57th ID	N 50.733	E 35.431	16
19430711	11th PzD	N 51.032	E 36.340	13
19430711	19th PzD	N 50.692	E 36.733	2
19430711	3rd PzD	N 50.963	E 36.299	11
19430711	6th PzD	N 50.727	E 36.812	9
19430711	7th PzD	N 50.627	E 36.825	7
19430711	DR SS PzGrD	N 50.919	E 36.592	13
19430711	GD PzGrD	N 50.979	E 36.225	13
19430711	LSSAH PzGrD	N 50.997	E 36.614	13
19430711	T SS PzGrD	N 51.036	E 36.525	14
19430712	3rd Pz Corps	N 50.795	E 36.849	5
19430712	48th Pz Corps	N 50.855	E 36.359	1
19430712	4th Panzer Army	N 50.844	E 36.127	15
19430712	52nd Corps	N 50.779	E 35.875	18
19430712	Corps Raus	N 50.502	E 36.806	16
19430712	II SS Pz Corps	N 50.788	E 36.468	1
19430712	Provisional Army Kempf	N 50.618	E 36.782	15
19430712	106th ID	N 50.529	E 36.806	12
19430712	167th ID	N 50.812	E 36.585	16
19430712	168th ID	N 50.717	E 36.665	11
19430712	198th ID	N 50.583	E 36.832	8
19430712	255th ID	N 50.717	E 35.886	13
19430712	320th ID	N 50.428	E 36.789	10
19430712	332nd ID	N 50.857	E 36.117	13
19430712	57th ID	N 50.733	E 35.472	12
19430712	11th PzD	N 51.045	E 36.375	16
19430712	19th PzD	N 50.739	E 36.701	12
19430712	3rd PzD	N 50.926	E 36.228	10
19430712	6th PzD	N 50.830	E 36.856	9
19430712	7th PzD	N 50.653	E 36.857	9
19430712	DR SS PzGrD	N 50.949	E 36.616	13
19430712	GD PzGrD	N 50.956	E 36.194	16
19430712	LSSAH PzGrD	N 51.011	E 36.643	13
19430712	T SS PzGrD	N 51.045	E 36.541	11
19430713	3rd Pz Corps	N 50.841	E 36.850	6
19430713	48th Pz Corps	N 50.855	E 36.359	1
19430713	4th Panzer Army	N 50.860	E 36.279	15
19430713	52nd Corps	N 50.730	E 35.635	18
19430713	Corps Raus	N 50.519	E 36.814	18
19430713	II SS Pz Corps	N 50.788	E 36.468	1
19430713	Provisional Army Kempf	N 50.690	E 36.786	15
19430713	106th ID	N 50.529	E 36.808	12

Table L-1. Daily Locations of German Units in the KDB
(page 6 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430713	167th ID	N 50.812	E 36.585	16
19430713	168th ID	N 50.785	E 36.763	17
19430713	198th ID	N 50.606	E 36.843	12
19430713	255th ID	N 50.717	E 35.886	13
19430713	320th ID	N 50.428	E 36.789	10
19430713	332nd ID	N 50.867	E 36.137	13
19430713	57th ID	N 50.733	E 35.472	12
19430713	11th PzD	N 51.036	E 36.346	14
19430713	19th PzD	N 50.862	E 36.820	9
19430713	3rd PzD	N 50.932	E 36.227	9
19430713	6th PzD	N 50.842	E 36.852	11
19430713	7th PzD	N 50.771	E 36.839	4
19430713	DR SS PzGrD	N 50.949	E 36.616	13
19430713	GD PzGrD	N 50.991	E 36.261	11
19430713	LSSAH PzGrD	N 51.011	E 36.643	13
19430713	T SS PzGrD	N 51.048	E 36.565	16
19430714	3rd Pz Corps	N 50.806	E 36.795	14
19430714	48th Pz Corps	N 50.855	E 36.359	1
19430714	4th Panzer Army	N 50.885	E 36.279	15
19430714	52nd Corps	N 50.758	E 35.770	18
19430714	Corps Raus	N 50.524	E 36.813	17
19430714	II SS Pz Corps	N 50.788	E 36.468	1
19430714	Provisional Army Kempf	N 50.687	E 36.788	15
19430714	106th ID	N 50.529	E 36.806	12
19430714	167th ID	N 50.812	E 36.585	16
19430714	168th ID	N 50.768	E 36.745	13
19430714	198th ID	N 50.618	E 36.841	15
19430714	255th ID	N 50.757	E 35.952	18
19430714	320th ID	N 50.428	E 36.789	10
19430714	332nd ID	N 50.867	E 36.137	13
19430714	57th ID	N 50.733	E 35.472	12
19430714	11th PzD	N 51.036	E 36.346	14
19430714	19th PzD	N 50.851	E 36.794	17
19430714	3rd PzD	N 50.927	E 36.199	8
19430714	6th PzD	N 50.843	E 36.865	14
19430714	7th PzD	N 50.790	E 36.877	11
19430714	DR SS PzGrD	N 50.949	E 36.616	13
19430714	GD PzGrD	N 50.981	E 36.232	13
19430714	LSSAH PzGrD	N 51.014	E 36.649	15
19430714	T SS PzGrD	N 51.048	E 36.565	16
19430715	3rd Pz Corps	N 50.825	E 36.800	17
19430715	48th Pz Corps	N 50.855	E 36.359	1
19430715	4th Panzer Army	N 50.879	E 36.270	15
19430715	52nd Corps	N 50.758	E 35.770	18

Table L-1. Daily Locations of German Units in the KDB
(page 7 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430715	Corps Raus	N 50.540	E 36.815	18
19430715	II SS Pz Corps	N 50.788	E 36.468	1
19430715	Provisional Army Kempf	N 50.691	E 36.804	15
19430715	106th ID	N 50.529	E 36.806	12
19430715	167th ID	N 50.812	E 36.585	16
19430715	168th ID	N 50.775	E 36.745	14
19430715	198th ID	N 50.622	E 36.841	16
19430715	255th ID	N 50.757	E 35.952	18
19430715	320th ID	N 50.428	E 36.789	10
19430715	332nd ID	N 50.913	E 36.140	14
19430715	57th ID	N 50.733	E 35.472	12
19430715	11th PzD	N 51.036	E 36.346	14
19430715	19th PzD	N 50.862	E 36.783	14
19430715	3rd PzD	N 50.930	E 36.201	8
19430715	6th PzD	N 50.858	E 36.882	15
19430715	7th PzD	N 50.874	E 36.854	10
19430715	DR SS PzGrD	N 50.941	E 36.633	14
19430715	GD PzGrD	N 50.972	E 36.212	11
19430715	LSSAH PzGrD	N 51.014	E 36.649	15
19430715	T SS PzGrD	N 51.048	E 36.565	16
19430716	3rd Pz Corps	N 50.857	E 36.822	12
19430716	48th Pz Corps	N 50.855	E 36.359	1
19430716	4th Panzer Army	N 50.898	E 36.264	15
19430716	52nd Corps	N 50.839	E 35.906	18
19430716	Corps Raus	N 50.525	E 36.812	16
19430716	II SS Pz Corps	N 50.788	E 36.468	1
19430716	Provisional Army Kempf	N 50.649	E 36.809	12
19430716	106th ID	N 50.529	E 36.806	12
19430716	167th ID	N 50.812	E 36.592	16
19430716	168th ID	N 50.793	E 36.747	14
19430716	198th ID	N 50.616	E 36.841	14
19430716	255th ID	N 50.757	E 35.952	18
19430716	320th ID	N 50.428	E 36.789	10
19430716	332nd ID	N 50.913	E 36.140	14
19430716	57th ID	N 50.733	E 35.472	12
19430716	11th PzD	N 51.036	E 36.346	14
19430716	19th PzD	N 50.903	E 36.827	7
19430716	3rd PzD	N 50.930	E 36.201	8
19430716	6th PzD	N 50.858	E 36.882	15
19430716	7th PzD	N 50.934	E 36.760	12
19430716	DR SS PzGrD	N 50.959	E 36.679	16
19430716	GD PzGrD	N 50.972	E 36.212	11
19430716	LSSAH PzGrD	N 51.019	E 36.648	13
19430716	T SS PzGrD	N 51.048	E 36.565	16

Table L-1. Daily Locations of German Units in the KDB
(page 8 of 8 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430717	3rd Pz Corps	N 50.873	E 36.793	11
19430717	48th Pz Corps	N 50.855	E 36.359	1
19430717	4th Panzer Army	N 50.915	E 36.209	15
19430717	52nd Corps	N 50.839	E 35.906	18
19430717	Corps Raus	N 50.525	E 36.812	16
19430717	Provisional Army Kempf	N 50.649	E 36.809	12
19430717	106th ID	N 50.529	E 36.806	12
19430717	167th ID	N 50.944	E 36.685	13
19430717	168th ID	N 50.793	E 36.747	14
19430717	198th ID	N 50.616	E 36.841	14
19430717	255th ID	N 50.757	E 35.952	18
19430717	320th ID	N 50.428	E 36.789	10
19430717	332nd ID	N 50.913	E 36.140	14
19430717	57th ID	N 50.733	E 35.472	12
19430717	11th PzD	N 51.036	E 36.346	14
19430717	19th PzD	N 50.903	E 36.827	7
19430717	3rd PzD	N 50.927	E 36.199	8
19430717	6th PzD	N 50.858	E 36.882	15
19430717	7th PzD	N 50.930	E 36.760	12
19430717	DR SS PzGrD	N 50.797	E 36.543	1
19430717	GD PzGrD	N 50.972	E 36.212	11
19430717	LSSAH PzGrD	N 51.019	E 36.648	13
19430717	T SS PzGrD	N 51.048	E 36.565	16
19430718	3rd Pz Corps	N 50.772	E 36.792	1
19430718	48th Pz Corps	N 50.855	E 36.359	1
19430718	4th Panzer Army	N 50.885	E 36.124	12
19430718	52nd Corps	N 50.752	E 35.731	18
19430718	Corps Raus	N 50.525	E 36.812	16
19430718	Provisional Army Kempf	N 50.649	E 36.809	12
19430718	106th ID	N 50.529	E 36.806	12
19430718	167th ID	N 50.944	E 36.685	13
19430718	168th ID	N 50.789	E 36.742	13
19430718	198th ID	N 50.616	E 36.841	14
19430718	255th ID	N 50.749	E 35.936	17
19430718	320th ID	N 50.428	E 36.789	10
19430718	332nd ID	N 50.913	E 36.140	14
19430718	57th ID	N 50.733	E 35.472	12
19430718	11th PzD	N 51.036	E 36.346	14
19430718	19th PzD	N 50.907	E 36.814	9
19430718	3rd PzD	N 50.927	E 36.199	8
19430718	6th PzD	N 50.858	E 36.882	15
19430718	7th PzD	N 50.883	E 36.345	9
19430718	DR SS PzGrD	N 50.929	E 36.401	1
19430718	GD PzGrD	N 50.972	E 36.212	11
19430718	LSSAH PzGrD	N 50.988	E 36.603	16
19430718	T SS PzGrD	N 51.048	E 36.565	16

Table L-2. Daily Locations of Soviet Units in the KDB
(page 1 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430704	22d Gds RC	N 50.956	E 36.190	1
19430704	23d Gds RC	N 50.952	E 36.598	1
19430704	25th Gds RC	N 50.609	E 36.914	1
19430704	40th Army	N 50.969	E 35.597	1
19430704	47th RC	N 50.832	E 35.510	1
19430704	48th RC	N 50.899	E 37.069	1
19430704	49th RC	N 50.385	E 37.357	1
19430704	52d RC	N 50.876	E 35.858	1
19430704	69th Army	N 50.814	E 37.189	1
19430704	6th Gds Army	N 51.024	E 36.440	1
19430704	Voronezh Front	N 51.236	E 36.689	1
19430704	3rd Mech Corps	N 51.040	E 36.255	16
19430704	100th RD	N 50.719	E 35.769	6
19430704	107th RD	N 50.682	E 37.146	7
19430704	111th RD	N 50.463	E 37.189	1
19430704	15th Gds RD	N 50.360	E 36.933	5
19430704	161st RD	N 50.837	E 35.576	3
19430704	183rd RD	N 50.952	E 36.704	10
19430704	184th RD	N 51.006	E 36.014	11
19430704	206th RD	N 50.724	E 35.514	6
19430704	213th RD	N 50.480	E 36.872	8
19430704	219th RD	N 50.709	E 35.613	7
19430704	237th RD	N 50.755	E 35.323	8
19430704	270th RD	N 50.387	E 37.354	1
19430704	305th RD	N 50.814	E 36.933	6
19430704	309th RD	N 50.826	E 35.822	7
19430704	36th Gds RD	N 50.377	E 36.834	17
19430704	375th RD	N 50.680	E 36.573	8
19430704	51st Gds RD	N 50.858	E 36.516	8
19430704	52nd Gds RD	N 50.758	E 36.415	8
19430704	67th Gds RD	N 50.783	E 36.269	9
19430704	71st Gds RD	N 50.766	E 36.037	10
19430704	72nd Gds RD	N 50.428	E 36.747	18
19430704	73rd Gds RD	N 50.605	E 36.848	8
19430704	78th Gds RD	N 50.521	E 36.661	11
19430704	81st Gds RD	N 50.603	E 36.633	16
19430704	89th Gds RD	N 50.712	E 36.830	8
19430704	90th Gds RD	N 50.880	E 36.262	16
19430704	92nd Gds RD	N 50.738	E 37.366	3
19430704	93rd Gds RD	N 51.022	E 37.118	8
19430704	95th Gds RD	N 51.025	E 37.275	11
19430704	97th Gds RD	N 51.185	E 37.243	5
19430704	2nd Gds TC	N 50.795	E 37.286	1
19430704	31st TC	N 51.043	E 35.613	6
19430704	6th TC	N 51.232	E 36.135	6
19430704	192nd TkBde	N 50.965	E 35.789	2

Table L-2. Daily Locations of Soviet Units in the KDB
 (page 2 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430704	27th Gds TkBde	N 50.422	E 37.045	2
19430704	86th TkBde	N 50.909	E 35.797	3
19430704	96th TkBde	N 50.660	E 36.686	3
19430705	22d Gds RC	N 50.956	E 36.190	1
19430705	23d Gds RC	N 50.952	E 36.598	1
19430705	40th Army	N 50.969	E 35.597	1
19430705	47th RC	N 50.832	E 35.510	1
19430705	52d RC	N 50.876	E 35.858	1
19430705	69th Army	N 50.814	E 37.189	1
19430705	Voronezh Front	N 51.236	E 36.689	1
19430705	3rd Mech Corps	N 50.868	E 36.333	11
19430705	100th RD	N 50.719	E 35.769	6
19430705	107th RD	N 50.682	E 37.146	7
19430705	15th Gds RD	N 50.360	E 36.933	5
19430705	161st RD	N 50.837	E 35.576	3
19430705	183rd RD	N 50.952	E 36.704	10
19430705	184th RD	N 51.006	E 36.014	11
19430705	206th RD	N 50.724	E 35.514	6
19430705	213th RD	N 50.438	E 36.763	6
19430705	219th RD	N 50.709	E 35.613	7
19430705	237th RD	N 50.755	E 35.323	8
19430705	270th RD	N 50.377	E 36.834	17
19430705	305th RD	N 50.814	E 36.933	6
19430705	309th RD	N 50.826	E 35.822	7
19430705	36th Gds RD	N 50.377	E 36.834	17
19430705	375th RD	N 50.680	E 36.573	8
19430705	51st Gds RD	N 50.858	E 36.516	8
19430705	52nd Gds RD	N 50.777	E 36.432	9
19430705	67th Gds RD	N 50.787	E 36.261	10
19430705	71st Gds RD	N 50.775	E 36.049	11
19430705	72nd Gds RD	N 50.408	E 36.804	15
19430705	73rd Gds RD	N 50.535	E 36.824	8
19430705	78th Gds RD	N 50.535	E 36.685	11
19430705	81st Gds RD	N 50.603	E 36.633	16
19430705	89th Gds RD	N 50.712	E 36.830	8
19430705	90th Gds RD	N 50.880	E 36.262	16
19430705	92nd Gds RD	N 50.738	E 37.366	3
19430705	93rd Gds RD	N 51.022	E 37.118	8
19430705	95th Gds RD	N 51.025	E 37.275	11
19430705	97th Gds RD	N 51.185	E 37.243	5
19430705	2nd Gds TC	N 50.799	E 36.614	7
19430705	31st TC	N 51.043	E 35.613	6
19430705	6th TC	N 51.232	E 36.135	6
19430705	192nd TkBde	N 50.965	E 35.789	2

Table L-2. Daily Locations of Soviet Units in the KDB
(page 3 of 19 pages)

Date	Unit Name	Deg Lat		Deg Long		Nr Pts
19430705	27th Gds TkBde	N	50.454	E	36.763	3
19430705	86th TkBde	N	50.909	E	35.797	3
19430705	96th TkBde	N	50.756	E	36.576	4
19430706	22d Gds RC	N	50.956	E	36.190	1
19430706	23d Gds RC	N	50.952	E	36.598	1
19430706	33d Gds RC	N	51.090	E	37.445	1
19430706	40th Army	N	50.969	E	35.597	1
19430706	47th RC	N	50.832	E	35.510	1
19430706	52d RC	N	50.876	E	35.858	1
19430706	69th Army	N	50.814	E	37.189	1
19430706	Voronezh Front	N	51.236	E	36.689	1
19430706	3rd Mech Corps	N	50.865	E	36.369	11
19430706	100th RD	N	50.719	E	35.769	6
19430706	107th RD	N	50.682	E	37.146	7
19430706	111th RD	N	50.360	E	36.933	3
19430706	161st RD	N	50.837	E	35.576	3
19430706	183rd RD	N	50.952	E	36.704	10
19430706	184th RD	N	50.911	E	36.061	10
19430706	206th RD	N	50.724	E	35.514	6
19430706	213th RD	N	50.440	E	36.804	5
19430706	219th RD	N	50.709	E	35.613	7
19430706	237th RD	N	50.755	E	35.323	8
19430706	270th RD	N	50.377	E	36.834	17
19430706	305th RD	N	50.814	E	36.933	6
19430706	309th RD	N	50.821	E	35.811	6
19430706	36th Gds RD	N	50.377	E	36.834	17
19430706	375th RD	N	50.705	E	36.567	11
19430706	51st Gds RD	N	50.879	E	36.519	7
19430706	52nd Gds RD	N	50.860	E	36.392	5
19430706	67th Gds RD	N	50.861	E	36.380	6
19430706	71st Gds RD	N	50.799	E	36.029	10
19430706	72nd Gds RD	N	50.415	E	36.799	13
19430706	73rd Gds RD	N	50.520	E	36.803	8
19430706	78th Gds RD	N	50.536	E	36.813	11
19430706	81st Gds RD	N	50.603	E	36.633	16
19430706	89th Gds RD	N	50.712	E	36.830	8
19430706	90th Gds RD	N	50.880	E	36.262	16
19430706	92nd Gds RD	N	50.738	E	37.366	3
19430706	95th Gds RD	N	51.025	E	37.275	11
19430706	97th Gds RD	N	51.185	E	37.243	5
19430706	2nd Gds TC	N	50.794	E	36.523	5
19430706	31st TC	N	51.020	E	36.220	5
19430706	5th Gds TC	N	50.912	E	36.546	5
19430706	6th TC	N	50.891	E	36.140	5

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430706	180th TkBde	N 51.168	E 36.282	3
19430706	192nd TkBde	N 50.924	E 35.984	4
19430706	27th Gds TkBde	N 50.500	E 36.809	2
19430706	86th TkBde	N 50.935	E 36.067	4
19430706	96th TkBde	N 50.757	E 36.571	5
19430707	22d Gds RC	N 50.956	E 36.190	1
19430707	23d Gds RC	N 50.937	E 36.837	1
19430707	33d Gds RC	N 51.090	E 37.445	1
19430707	40th Army	N 50.969	E 35.597	1
19430707	47th RC	N 50.832	E 35.510	1
19430707	52d RC	N 50.876	E 35.858	1
19430707	69th Army	N 50.814	E 37.189	1
19430707	Voronezh Front	N 51.236	E 36.689	1
19430707	3rd Mech Corps	N 50.890	E 36.301	10
19430707	100th RD	N 50.726	E 35.814	9
19430707	107th RD	N 50.682	E 37.146	7
19430707	111th RD	N 50.360	E 36.933	3
19430707	15th Gds RD	N 50.528	E 36.886	15
19430707	161st RD	N 50.746	E 35.924	5
19430707	183rd RD	N 50.952	E 36.704	10
19430707	184th RD	N 50.911	E 36.061	10
19430707	206th RD	N 50.724	E 35.514	6
19430707	213th RD	N 50.425	E 36.803	18
19430707	219th RD	N 50.709	E 35.613	7
19430707	237th RD	N 50.755	E 35.323	8
19430707	270th RD	N 50.538	E 36.888	18
19430707	309th RD	N 50.822	E 35.896	5
19430707	36th Gds RD	N 50.377	E 36.834	17
19430707	375th RD	N 50.701	E 36.583	10
19430707	51st Gds RD	N 50.978	E 36.406	5
19430707	52nd Gds RD	N 51.052	E 36.584	5
19430707	67th Gds RD	N 50.901	E 36.244	6
19430707	71st Gds RD	N 50.799	E 36.029	10
19430707	72nd Gds RD	N 50.416	E 36.787	17
19430707	73rd Gds RD	N 50.552	E 36.823	6
19430707	78th Gds RD	N 50.561	E 36.841	11
19430707	81st Gds RD	N 50.625	E 36.675	14
19430707	89th Gds RD	N 50.736	E 36.625	5
19430707	90th Gds RD	N 50.882	E 36.227	13
19430707	92nd Gds RD	N 50.738	E 37.366	3
19430707	93rd Gds RD	N 50.838	E 36.714	5
19430707	94th Gds RD	N 50.671	E 36.868	1
19430707	95th Gds RD	N 51.031	E 37.241	13
19430707	97th Gds RD	N 51.185	E 37.243	5
19430707	10th TC	N 51.036	E 36.713	9

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430707	2nd Gds TC	N 50.806	E 36.612	7
19430707	31st TC	N 50.927	E 36.454	3
19430707	5th Gds TC	N 50.920	E 36.636	4
19430707	6th TC	N 50.891	E 36.140	5
19430707	180th TkBde	N 50.948	E 36.358	3
19430707	192nd TkBde	N 50.973	E 36.356	3
19430707	27th Gds TkBde	N 50.462	E 36.804	6
19430707	86th TkBde	N 50.935	E 36.067	4
19430707	96th TkBde	N 50.752	E 36.560	3
19430708	22d Gds RC	N 51.027	E 36.106	1
19430708	33d Gds RC	N 51.090	E 37.445	1
19430708	40th Army	N 50.969	E 35.597	1
19430708	47th RC	N 50.832	E 35.510	1
19430708	52d RC	N 50.876	E 35.858	1
19430708	69th Army	N 50.814	E 37.189	1
19430708	Voronezh Front	N 51.236	E 36.689	1
19430708	3rd Mech Corps	N 51.094	E 36.284	1
19430708	100th RD	N 50.726	E 35.814	9
19430708	107th RD	N 50.682	E 37.146	7
19430708	111th RD	N 50.450	E 36.885	16
19430708	15th Gds RD	N 50.597	E 36.919	15
19430708	161st RD	N 50.752	E 35.947	5
19430708	183rd RD	N 50.952	E 36.704	10
19430708	184th RD	N 50.911	E 36.061	10
19430708	206th RD	N 50.724	E 35.514	6
19430708	213th RD	N 50.459	E 36.816	7
19430708	219th RD	N 50.709	E 35.613	7
19430708	237th RD	N 50.755	E 35.323	8
19430708	270th RD	N 50.538	E 36.888	18
19430708	305th RD	N 50.706	E 36.812	8
19430708	309th RD	N 50.799	E 35.967	4
19430708	36th Gds RD	N 50.377	E 36.834	17
19430708	375th RD	N 50.685	E 36.591	7
19430708	51st Gds RD	N 50.978	E 36.406	5
19430708	52nd Gds RD	N 51.040	E 36.564	7
19430708	67th Gds RD	N 50.947	E 36.308	6
19430708	71st Gds RD	N 50.799	E 36.029	10
19430708	72nd Gds RD	N 50.410	E 36.791	16
19430708	73rd Gds RD	N 50.552	E 36.823	6
19430708	78th Gds RD	N 50.543	E 36.810	8
19430708	81st Gds RD	N 50.629	E 36.661	14
19430708	89th Gds RD	N 50.737	E 36.579	5
19430708	90th Gds RD	N 50.890	E 36.217	14
19430708	92nd Gds RD	N 50.738	E 37.366	3
19430708	93rd Gds RD	N 50.793	E 36.629	4

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430708	94th Gds RD	N 50.632	E 36.819	10
19430708	95th Gds RD	N 51.031	E 37.241	13
19430708	97th Gds RD	N 51.185	E 37.243	5
19430708	10th TC	N 51.015	E 36.582	8
19430708	2nd Gds TC	N 50.797	E 36.618	10
19430708	31st TC	N 50.993	E 36.416	3
19430708	5th Gds TC	N 50.927	E 36.591	4
19430708	6th TC	N 50.910	E 36.222	11
19430708	180th TkBde	N 50.948	E 36.358	3
19430708	192nd TkBde	N 50.947	E 36.429	4
19430708	27th Gds TkBde	N 50.462	E 36.804	6
19430708	86th TkBde	N 51.021	E 36.343	4
19430708	96th TkBde	N 50.705	E 36.754	5
19430709	Trufanovs Detachment	N 51.198	E 36.282	4
19430709	22d Gds RC	N 51.027	E 36.106	1
19430709	33d Gds RC	N 51.090	E 37.445	1
19430709	40th Army	N 50.969	E 35.597	1
19430709	47th RC	N 50.832	E 35.510	1
19430709	52d RC	N 50.876	E 35.858	1
19430709	69th Army	N 50.814	E 37.189	1
19430709	Voronezh Front	N 51.236	E 36.689	1
19430709	3rd Mech Corps	N 51.060	E 36.330	8
19430709	5th Gds MC	N 51.221	E 36.496	3
19430709	100th RD	N 50.722	E 35.786	11
19430709	107th RD	N 50.781	E 36.981	1
19430709	111th RD	N 50.450	E 36.885	16
19430709	15th Gds RD	N 50.602	E 36.919	15
19430709	161st RD	N 50.752	E 35.947	5
19430709	183rd RD	N 50.903	E 36.642	8
19430709	184th RD	N 50.902	E 36.052	9
19430709	206th RD	N 50.716	E 35.551	9
19430709	213th RD	N 50.402	E 36.790	16
19430709	219th RD	N 50.819	E 35.770	5
19430709	237th RD	N 50.755	E 35.323	8
19430709	270th RD	N 50.549	E 36.892	17
19430709	305th RD	N 50.706	E 36.812	8
19430709	309th RD	N 51.072	E 36.374	7
19430709	36th Gds RD	N 50.377	E 36.834	17
19430709	375th RD	N 50.675	E 36.633	12
19430709	42nd Gds RD	N 51.075	E 37.388	4
19430709	51st Gds RD	N 50.983	E 36.389	5
19430709	52nd Gds RD	N 51.047	E 36.578	6
19430709	67th Gds RD	N 51.027	E 36.293	10
19430709	71st Gds RD	N 50.833	E 36.085	11

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430709	72nd Gds RD	N 50.410	E 36.791	16
19430709	73rd Gds RD	N 50.691	E 36.809	7
19430709	78th Gds RD	N 50.540	E 36.813	11
19430709	81st Gds RD	N 50.631	E 36.663	13
19430709	89th Gds RD	N 50.737	E 36.579	5
19430709	90th Gds RD	N 50.880	E 36.215	13
19430709	92nd Gds RD	N 50.685	E 36.772	8
19430709	93rd Gds RD	N 50.799	E 36.628	5
19430709	94th Gds RD	N 50.632	E 36.819	10
19430709	95th Gds RD	N 51.049	E 37.027	7
19430709	97th Gds RD	N 51.161	E 37.036	5
19430709	10th TC	N 51.015	E 36.582	8
19430709	18th TC	N 51.027	E 36.638	5
19430709	29th TC	N 51.161	E 36.844	6
19430709	2nd Gds TC	N 50.814	E 36.648	7
19430709	2nd TC	N 51.001	E 36.604	8
19430709	31st TC	N 51.077	E 36.379	4
19430709	5th Gds TC	N 50.927	E 36.591	4
19430709	6th TC	N 50.914	E 36.207	10
19430709	180th TkBde	N 50.991	E 36.340	3
19430709	192nd TkBde	N 51.017	E 36.392	4
19430709	27th Gds TkBde	N 50.462	E 36.804	6
19430709	86th TkBde	N 51.021	E 36.343	4
19430709	96th TkBde	N 50.711	E 36.751	5
19430710	9th Gds AbnD	N 51.062	E 36.939	4
19430710	Trufanovs Detachment	N 51.198	E 36.282	4
19430710	22d Gds RC	N 51.027	E 36.106	1
19430710	33d Gds RC	N 51.123	E 36.896	1
19430710	40th Army	N 50.969	E 35.597	1
19430710	47th RC	N 50.832	E 35.510	1
19430710	49th RC	N 50.516	E 37.018	1
19430710	52d RC	N 50.876	E 35.858	1
19430710	5th Gds Army	N 51.205	E 36.708	1
19430710	69th Army	N 50.814	E 37.189	1
19430710	Voronezh Front	N 51.236	E 36.689	1
19430710	3rd Mech Corps	N 51.036	E 36.297	6
19430710	5th Gds MC	N 51.154	E 36.353	5
19430710	100th RD	N 50.715	E 35.741	8
19430710	107th RD	N 50.744	E 36.906	5
19430710	111th RD	N 50.450	E 36.885	16
19430710	15th Gds RD	N 50.593	E 36.828	6
19430710	161st RD	N 50.752	E 35.947	5
19430710	183rd RD	N 50.903	E 36.642	8

Table L-2. Daily Locations of Soviet Units in the KDB
(page 8 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430710	184th RD	N 50.950	E 36.137	7
19430710	206th RD	N 50.716	E 35.551	9
19430710	213th RD	N 50.398	E 36.795	14
19430710	219th RD	N 51.078	E 36.178	6
19430710	237th RD	N 50.755	E 35.323	8
19430710	270th RD	N 50.544	E 36.891	18
19430710	305th RD	N 50.706	E 36.812	8
19430710	309th RD	N 51.072	E 36.374	7
19430710	36th Gds RD	N 50.377	E 36.834	17
19430710	375th RD	N 50.732	E 36.751	6
19430710	42nd Gds RD	N 51.144	E 37.009	7
19430710	51st Gds RD	N 51.068	E 36.451	6
19430710	52nd Gds RD	N 51.041	E 36.578	6
19430710	67th Gds RD	N 51.032	E 36.289	5
19430710	71st Gds RD	N 50.839	E 36.084	10
19430710	72nd Gds RD	N 50.469	E 36.809	5
19430710	73rd Gds RD	N 50.541	E 36.819	7
19430710	78th Gds RD	N 50.541	E 36.811	11
19430710	81st Gds RD	N 50.784	E 36.769	9
19430710	89th Gds RD	N 50.744	E 36.686	12
19430710	90th Gds RD	N 50.889	E 36.198	11
19430710	92nd Gds RD	N 50.726	E 36.751	6
19430710	93rd Gds RD	N 50.799	E 36.628	5
19430710	94th Gds RD	N 50.632	E 36.819	10
19430710	95th Gds RD	N 51.071	E 36.746	8
19430710	10th TC	N 51.021	E 36.571	6
19430710	18th TC	N 51.042	E 36.631	7
19430710	29th TC	N 51.161	E 36.844	6
19430710	2nd Gds TC	N 50.905	E 36.682	7
19430710	2nd TC	N 50.999	E 36.625	6
19430710	31st TC	N 51.077	E 36.379	4
19430710	5th Gds TC	N 51.095	E 36.357	4
19430710	6th TC	N 50.926	E 36.213	12
19430710	180th Tkbde	N 51.055	E 36.352	3
19430710	192nd Tkbde	N 51.039	E 36.308	3
19430710	27th Gds Tkbde	N 50.462	E 36.804	6
19430710	86th Tkbde	N 51.073	E 36.330	3
19430710	96th Tkbde	N 50.740	E 36.730	4
19430711	6th Gds AbnD	N 51.121	E 36.617	4
19430711	9th Gds AbnD	N 51.029	E 36.694	5
19430711	Trufanovs Detachment	N 51.198	E 36.282	4
19430711	23d Gds RC	N 50.930	E 37.020	1
19430711	32d Gds RC	N 51.278	E 36.444	1
19430711	33d Gds RC	N 51.139	E 36.523	1

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430711	40th Army	N 50.969	E 35.597	1
19430711	47th RC	N 50.832	E 35.510	1
19430711	48th RC	N 50.932	E 36.824	1
19430711	52d RC	N 50.876	E 35.858	1
19430711	5th Gds Army	N 51.205	E 36.708	1
19430711	69th Army	N 50.814	E 37.189	1
19430711	Voronezh Front	N 51.236	E 36.689	1
19430711	3rd Mech Corps	N 51.036	E 36.297	6
19430711	5th Gds MC	N 51.042	E 36.849	7
19430711	100th RD	N 50.715	E 35.741	8
19430711	107th RD	N 50.744	E 36.906	5
19430711	111th RD	N 50.450	E 36.885	16
19430711	13th Gds RD	N 51.207	E 36.313	6
19430711	15th Gds RD	N 50.593	E 36.828	6
19430711	161st RD	N 50.752	E 35.947	5
19430711	183rd RD	N 50.964	E 36.612	7
19430711	184th RD	N 50.950	E 36.137	7
19430711	206th RD	N 50.716	E 35.551	9
19430711	213th RD	N 50.398	E 36.795	14
19430711	219th RD	N 51.012	E 36.101	3
19430711	237th RD	N 50.755	E 35.323	8
19430711	270th RD	N 50.521	E 36.814	5
19430711	305th RD	N 50.706	E 36.812	8
19430711	309th RD	N 51.072	E 36.374	7
19430711	36th Gds RD	N 50.377	E 36.834	17
19430711	375th RD	N 50.890	E 36.714	6
19430711	42nd Gds RD	N 51.147	E 36.814	9
19430711	51st Gds RD	N 51.068	E 36.451	6
19430711	52nd Gds RD	N 51.056	E 36.572	6
19430711	66th Gds RD	N 51.136	E 36.409	7
19430711	67th Gds RD	N 51.032	E 36.278	7
19430711	71st Gds RD	N 50.838	E 36.080	10
19430711	72nd Gds RD	N 50.469	E 36.809	5
19430711	73rd Gds RD	N 50.541	E 36.819	7
19430711	78th Gds RD	N 50.541	E 36.811	11
19430711	81st Gds RD	N 50.832	E 36.722	10
19430711	89th Gds RD	N 50.836	E 36.746	10
19430711	90th Gds RD	N 50.901	E 36.143	7
19430711	92nd Gds RD	N 50.728	E 36.754	6
19430711	93rd Gds RD	N 50.799	E 36.628	5
19430711	94th Gds RD	N 50.632	E 36.819	10
19430711	95th Gds RD	N 51.036	E 36.599	4
19430711	97th Gds RD	N 51.077	E 36.497	9
19430711	10th TC	N 51.021	E 36.571	6
19430711	18th TC	N 51.042	E 36.631	7

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430711	29th TC	N 51.161	E 36.844	6
19430711	2nd Gds TC	N 50.944	E 36.650	7
19430711	2nd TC	N 51.000	E 36.684	5
19430711	31st TC	N 51.077	E 36.379	4
19430711	5th Gds TC	N 51.095	E 36.357	4
19430711	6th TC	N 50.926	E 36.213	12
19430711	180th Tkbde	N 51.043	E 36.323	3
19430711	192nd Tkbde	N 51.039	E 36.308	3
19430711	27th Gds Tkbde	N 50.462	E 36.804	6
19430711	86th Tkbde	N 51.073	E 36.330	3
19430711	96th Tkbde	N 50.740	E 36.730	4
19430712	6th Gds AbnD	N 51.112	E 36.610	4
19430712	9th Gds AbnD	N 51.009	E 36.636	4
19430712	Trufanovs Detachment	N 50.911	E 36.951	2
19430712	22d Gds RC	N 51.040	E 36.065	1
19430712	32d Gds RC	N 51.125	E 36.366	1
19430712	33d Gds RC	N 51.092	E 36.643	1
19430712	40th Army	N 50.969	E 35.597	1
19430712	47th RC	N 50.832	E 35.510	1
19430712	52d RC	N 50.876	E 35.858	1
19430712	5th Gds Army	N 51.205	E 36.708	1
19430712	69th Army	N 50.814	E 37.189	1
19430712	Voronezh Front	N 51.236	E 36.689	1
19430712	3rd Mech Corps	N 51.035	E 36.290	6
19430712	5th Gds MC	N 51.042	E 36.849	7
19430712	100th RD	N 50.715	E 35.741	8
19430712	107th RD	N 50.746	E 36.941	5
19430712	111th RD	N 50.509	E 36.806	6
19430712	13th Gds RD	N 51.061	E 36.369	6
19430712	15th Gds RD	N 50.593	E 36.828	6
19430712	161st RD	N 50.752	E 35.947	5
19430712	183rd RD	N 50.930	E 36.590	5
19430712	184th RD	N 50.926	E 36.160	5
19430712	204th RD	N 51.045	E 36.252	4
19430712	206th RD	N 50.716	E 35.551	9
19430712	213th RD	N 50.403	E 36.789	16
19430712	219th RD	N 50.961	E 36.197	3
19430712	237th RD	N 50.755	E 35.323	8
19430712	270th RD	N 50.529	E 36.771	5
19430712	305th RD	N 50.790	E 36.980	3
19430712	309th RD	N 51.072	E 36.374	7
19430712	36th Gds RD	N 50.377	E 36.834	17
19430712	375th RD	N 50.853	E 36.614	5
19430712	42nd Gds RD	N 51.020	E 36.621	3
19430712	51st Gds RD	N 51.166	E 36.472	2

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430712	52nd Gds RD	N 51.063	E 36.578	8
19430712	66th Gds RD	N 51.014	E 36.421	4
19430712	67th Gds RD	N 51.019	E 36.245	7
19430712	71st Gds RD	N 50.837	E 36.080	10
19430712	72nd Gds RD	N 50.474	E 36.798	6
19430712	73rd Gds RD	N 50.536	E 36.816	7
19430712	78th Gds RD	N 50.539	E 36.895	11
19430712	81st Gds RD	N 50.763	E 36.779	5
19430712	89th Gds RD	N 50.836	E 36.746	10
19430712	90th Gds RD	N 50.919	E 36.136	7
19430712	92nd Gds RD	N 50.837	E 36.866	5
19430712	93rd Gds RD	N 50.839	E 36.567	4
19430712	94th Gds RD	N 50.685	E 36.895	5
19430712	95th Gds RD	N 51.047	E 36.592	4
19430712	97th Gds RD	N 51.047	E 36.467	5
19430712	10th TC	N 50.964	E 36.185	6
19430712	18th TC	N 51.025	E 36.615	6
19430712	29th TC	N 51.003	E 36.670	6
19430712	2nd Gds TC	N 50.938	E 36.631	9
19430712	2nd TC	N 51.000	E 36.684	5
19430712	31st TC	N 51.077	E 36.379	4
19430712	5th Gds TC	N 50.893	E 36.166	3
19430712	6th TC	N 50.966	E 36.086	6
19430712	192nd Tkbde	N 51.039	E 36.308	3
19430712	27th Gds Tkbde	N 50.492	E 36.802	3
19430712	96th Tkbde	N 50.869	E 36.915	3
19430713	6th Gds AbnD	N 51.112	E 36.610	4
19430713	9th Gds AbnD	N 51.009	E 36.636	4
19430713	Trufanovs Detachment	N 50.843	E 36.913	3
19430713	22d Gds RC	N 51.040	E 36.065	1
19430713	32d Gds RC	N 51.125	E 36.366	1
19430713	33d Gds RC	N 51.092	E 36.643	1
19430713	40th Army	N 50.969	E 35.597	1
19430713	47th RC	N 50.832	E 35.510	1
19430713	48th RC	N 50.922	E 36.712	1
19430713	52d RC	N 50.876	E 35.858	1
19430713	5th Gds Army	N 51.205	E 36.708	1
19430713	69th Army	N 50.814	E 37.189	1
19430713	Voronezh Front	N 51.236	E 36.689	1
19430713	3rd Mech Corps	N 51.036	E 36.312	8
19430713	5th Gds MC	N 51.046	E 36.569	3
19430713	100th RD	N 50.715	E 35.741	8
19430713	107th RD	N 50.744	E 36.944	6
19430713	111th RD	N 50.506	E 36.806	7
19430713	13th Gds RD	N 51.053	E 36.378	4

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430713	15th Gds RD	N 50.589	E 36.828	7
19430713	161st RD	N 50.752	E 35.947	5
19430713	183rd RD	N 50.930	E 36.590	5
19430713	184th RD	N 50.928	E 36.619	4
19430713	204th RD	N 50.994	E 36.257	4
19430713	206th RD	N 50.716	E 35.551	9
19430713	213th RD	N 50.416	E 36.773	18
19430713	219th RD	N 50.961	E 36.197	3
19430713	237th RD	N 50.755	E 35.323	8
19430713	270th RD	N 50.526	E 36.779	5
19430713	305th RD	N 50.789	E 36.938	6
19430713	309th RD	N 51.043	E 36.341	4
19430713	36th Gds RD	N 50.377	E 36.834	17
19430713	375th RD	N 50.890	E 36.594	6
19430713	42nd Gds RD	N 51.031	E 36.609	5
19430713	51st Gds RD	N 51.029	E 36.215	5
19430713	52nd Gds RD	N 51.063	E 36.578	8
19430713	66th Gds RD	N 51.014	E 36.421	4
19430713	67th Gds RD	N 51.019	E 36.245	7
19430713	71st Gds RD	N 50.837	E 36.080	10
19430713	72nd Gds RD	N 50.478	E 36.800	7
19430713	73rd Gds RD	N 50.536	E 36.819	7
19430713	78th Gds RD	N 50.545	E 36.895	11
19430713	81st Gds RD	N 50.763	E 36.779	5
19430713	89th Gds RD	N 50.836	E 36.746	10
19430713	90th Gds RD	N 50.910	E 36.170	5
19430713	92nd Gds RD	N 50.837	E 36.866	5
19430713	93rd Gds RD	N 50.781	E 36.636	3
19430713	94th Gds RD	N 50.690	E 36.877	6
19430713	95th Gds RD	N 51.052	E 36.579	4
19430713	97th Gds RD	N 51.047	E 36.467	5
19430713	10th TC	N 50.964	E 36.185	6
19430713	18th TC	N 51.039	E 36.620	12
19430713	29th TC	N 51.003	E 36.670	6
19430713	2nd Gds TC	N 50.944	E 36.650	7
19430713	2nd TC	N 50.985	E 36.681	6
19430713	31st TC	N 51.047	E 36.332	3
19430713	5th Gds TC	N 50.894	E 36.120	3
19430713	6th TC	N 50.954	E 36.199	6
19430713	192nd TkBde	N 51.039	E 36.308	3
19430713	27th Gds TkBde	N 50.492	E 36.802	3
19430713	96th TkBde	N 50.841	E 36.924	3
19430714	6th Gds AbnD	N 51.112	E 36.610	4
19430714	9th Gds AbnD	N 50.962	E 36.643	5
19430714	Trufanovs Detachment	N 50.892	E 36.945	4

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430714	22d Gds RC	N 51.040	E 36.065	1
19430714	32d Gds RC	N 51.125	E 36.366	1
19430714	33d Gds RC	N 51.092	E 36.643	1
19430714	40th Army	N 50.969	E 35.597	1
19430714	47th RC	N 50.832	E 35.510	1
19430714	52d RC	N 50.876	E 35.858	1
19430714	5th Gds Army	N 51.205	E 36.708	1
19430714	69th Army	N 50.814	E 37.189	1
19430714	Voronezh Front	N 51.236	E 36.689	1
19430714	3rd Mech Corps	N 51.017	E 36.310	9
19430714	5th Gds MC	N 51.072	E 36.642	3
19430714	100th RD	N 50.715	E 35.741	8
19430714	107th RD	N 50.744	E 36.944	6
19430714	111th RD	N 50.356	E 36.815	7
19430714	13th Gds RD	N 51.053	E 36.378	4
19430714	15th Gds RD	N 50.589	E 36.828	7
19430714	161st RD	N 50.752	E 35.947	5
19430714	183rd RD	N 50.921	E 36.648	4
19430714	184th RD	N 50.928	E 36.619	4
19430714	204th RD	N 50.980	E 36.262	4
19430714	206th RD	N 50.716	E 35.551	9
19430714	213th RD	N 50.416	E 36.773	18
19430714	219th RD	N 50.961	E 36.197	3
19430714	237th RD	N 50.755	E 35.323	8
19430714	270th RD	N 50.526	E 36.779	5
19430714	305th RD	N 50.807	E 36.950	5
19430714	309th RD	N 51.043	E 36.341	4
19430714	36th Gds RD	N 50.377	E 36.834	17
19430714	375th RD	N 50.880	E 36.602	6
19430714	42nd Gds RD	N 51.031	E 36.609	5
19430714	51st Gds RD	N 51.005	E 36.184	7
19430714	52nd Gds RD	N 51.061	E 36.578	8
19430714	66th Gds RD	N 51.014	E 36.421	4
19430714	67th Gds RD	N 51.019	E 36.245	7
19430714	71st Gds RD	N 50.837	E 36.080	10
19430714	72nd Gds RD	N 50.478	E 36.800	7
19430714	73rd Gds RD	N 50.536	E 36.814	7
19430714	78th Gds RD	N 50.545	E 36.895	11
19430714	89th Gds RD	N 50.795	E 36.698	9
19430714	90th Gds RD	N 50.882	E 36.141	13
19430714	92nd Gds RD	N 50.867	E 36.891	3
19430714	93rd Gds RD	N 50.781	E 36.636	3
19430714	94th Gds RD	N 50.690	E 36.877	6
19430714	95th Gds RD	N 51.052	E 36.579	4
19430714	97th Gds RD	N 51.047	E 36.467	5
19430714	10th TC	N 50.949	E 36.200	6

Table L-2. Daily Locations of Soviet Units in the KDB
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Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430714	18th TC	N 51.039	E 36.620	12
19430714	29th TC	N 51.003	E 36.670	6
19430714	2nd Gds TC	N 50.944	E 36.651	7
19430714	2nd TC	N 50.985	E 36.681	6
19430714	31st TC	N 51.035	E 36.355	4
19430714	5th Gds TC	N 50.930	E 36.094	3
19430714	6th TC	N 50.957	E 36.176	8
19430714	27th Gds Tkbde	N 50.495	E 36.812	6
19430714	96th Tkbde	N 50.841	E 36.924	3
19430715	6th Gds AbnD	N 51.112	E 36.610	4
19430715	9th Gds AbnD	N 50.962	E 36.643	5
19430715	Trufanovs Detachment	N 50.892	E 36.945	4
19430715	22d Gds RC	N 51.040	E 36.065	1
19430715	32d Gds RC	N 51.125	E 36.366	1
19430715	33d Gds RC	N 51.092	E 36.643	1
19430715	40th Army	N 50.969	E 35.597	1
19430715	47th RC	N 50.832	E 35.510	1
19430715	52d RC	N 50.876	E 35.858	1
19430715	5th Gds Army	N 51.205	E 36.708	1
19430715	69th Army	N 50.814	E 37.189	1
19430715	Voronezh Front	N 51.236	E 36.689	1
19430715	3rd Mech Corps	N 51.004	E 36.301	7
19430715	5th Gds MC	N 50.896	E 36.833	7
19430715	100th RD	N 50.715	E 35.741	8
19430715	107th RD	N 50.744	E 36.944	6
19430715	111th RD	N 50.651	E 36.797	7
19430715	13th Gds RD	N 51.053	E 36.378	4
19430715	15th Gds RD	N 50.589	E 36.828	7
19430715	161st RD	N 50.752	E 35.947	5
19430715	183rd RD	N 50.966	E 36.700	5
19430715	184th RD	N 50.927	E 36.130	5
19430715	204th RD	N 50.994	E 36.250	5
19430715	206th RD	N 50.716	E 35.551	9
19430715	213th RD	N 50.416	E 36.773	18
19430715	219th RD	N 50.961	E 36.197	3
19430715	237th RD	N 50.755	E 35.323	8
19430715	270th RD	N 50.526	E 36.779	5
19430715	305th RD	N 50.835	E 36.975	7
19430715	309th RD	N 51.025	E 36.309	5
19430715	36th Gds RD	N 50.377	E 36.834	17
19430715	375th RD	N 50.871	E 36.617	2
19430715	42nd Gds RD	N 51.031	E 36.609	5
19430715	51st Gds RD	N 51.021	E 36.235	6
19430715	52nd Gds RD	N 51.049	E 36.678	6
19430715	66th Gds RD	N 51.014	E 36.421	4

Table L-2. Daily Locations of Soviet Units in the KDB
(page 15 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430715	67th Gds RD	N 51.004	E 36.148	6
19430715	71st Gds RD	N 50.837	E 36.080	10
19430715	72nd Gds RD	N 50.478	E 36.800	7
19430715	73rd Gds RD	N 50.536	E 36.816	7
19430715	78th Gds RD	N 50.545	E 36.895	11
19430715	89th Gds RD	N 50.925	E 36.808	13
19430715	90th Gds RD	N 50.917	E 36.109	5
19430715	92nd Gds RD	N 50.880	E 36.891	4
19430715	93rd Gds RD	N 50.781	E 36.636	3
19430715	94th Gds RD	N 50.690	E 36.877	6
19430715	95th Gds RD	N 51.052	E 36.579	4
19430715	97th Gds RD	N 51.047	E 36.467	5
19430715	10th TC	N 50.972	E 36.170	4
19430715	18th TC	N 51.039	E 36.620	12
19430715	29th TC	N 51.000	E 36.679	8
19430715	2nd Gds TC	N 50.942	E 36.748	8
19430715	2nd TC	N 50.985	E 36.681	6
19430715	31st TC	N 51.035	E 36.355	4
19430715	5th Gds TC	N 50.930	E 36.094	3
19430715	6th TC	N 50.960	E 36.145	11
19430715	27th Gds TkBde	N 50.495	E 36.812	6
19430716	6th Gds AbnD	N 51.118	E 36.617	1
19430716	9th Gds AbnD	N 51.018	E 36.639	6
19430716	Trufanovs Detachment	N 50.892	E 36.945	4
19430716	22d Gds RC	N 51.040	E 36.065	1
19430716	32d Gds RC	N 51.125	E 36.366	1
19430716	33d Gds RC	N 51.092	E 36.643	1
19430716	40th Army	N 50.969	E 35.597	1
19430716	47th RC	N 50.832	E 35.510	1
19430716	48th RC	N 50.987	E 36.890	1
19430716	52d RC	N 50.876	E 35.858	1
19430716	5th Gds Army	N 51.205	E 36.708	1
19430716	69th Army	N 50.814	E 37.189	1
19430716	Voronezh Front	N 51.236	E 36.689	1
19430716	3rd Mech Corps	N 51.085	E 36.248	11
19430716	5th Gds MC	N 50.896	E 36.833	7
19430716	100th RD	N 50.715	E 35.741	8
19430716	107th RD	N 50.744	E 36.944	6
19430716	111th RD	N 50.506	E 36.806	7
19430716	13th Gds RD	N 51.045	E 36.376	4
19430716	15th Gds RD	N 50.589	E 36.828	7
19430716	161st RD	N 50.752	E 35.947	5
19430716	183rd RD	N 50.966	E 36.700	5
19430716	184th RD	N 50.927	E 36.130	5
19430716	204th RD	N 50.994	E 36.250	5

Table L-2. Daily Locations of Soviet Units in the KDB
(page 16 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430716	206th RD	N 50.716	E 35.551	9
19430716	213th RD	N 50.416	E 36.773	18
19430716	219th RD	N 50.961	E 36.197	3
19430716	237th RD	N 50.755	E 35.323	8
19430716	270th RD	N 50.526	E 36.779	5
19430716	305th RD	N 50.835	E 36.975	7
19430716	309th RD	N 51.025	E 36.309	5
19430716	36th Gds RD	N 50.377	E 36.834	17
19430716	375th RD	N 50.941	E 36.777	4
19430716	42nd Gds RD	N 51.031	E 36.609	5
19430716	51st Gds RD	N 51.021	E 36.235	6
19430716	52nd Gds RD	N 51.048	E 36.669	6
19430716	66th Gds RD	N 51.014	E 36.421	4
19430716	67th Gds RD	N 51.008	E 36.158	5
19430716	71st Gds RD	N 50.837	E 36.080	10
19430716	72nd Gds RD	N 50.478	E 36.800	7
19430716	73rd Gds RD	N 50.536	E 36.816	7
19430716	78th Gds RD	N 50.545	E 36.895	11
19430716	81st Gds RD	N 50.998	E 36.863	2
19430716	89th Gds RD	N 50.922	E 36.812	14
19430716	90th Gds RD	N 50.937	E 36.090	6
19430716	92nd Gds RD	N 50.880	E 36.891	4
19430716	93rd Gds RD	N 50.962	E 36.742	4
19430716	94th Gds RD	N 50.690	E 36.877	6
19430716	95th Gds RD	N 51.052	E 36.579	4
19430716	97th Gds RD	N 51.047	E 36.467	5
19430716	10th TC	N 50.972	E 36.170	4
19430716	18th TC	N 51.039	E 36.620	12
19430716	29th TC	N 51.000	E 36.679	8
19430716	2nd Gds TC	N 50.935	E 36.778	5
19430716	2nd TC	N 50.930	E 36.687	3
19430716	31st TC	N 51.107	E 36.384	7
19430716	5th Gds TC	N 50.936	E 36.093	4
19430716	6th TC	N 51.035	E 36.165	7
19430716	27th Gds TkBde	N 50.495	E 36.812	6
19430717	6th Gds AbnD	N 51.118	E 36.617	1
19430717	9th Gds AbnD	N 51.018	E 36.639	6
19430717	Trufanovs Detachment	N 50.892	E 36.945	4
19430717	22d Gds RC	N 51.067	E 36.036	1
19430717	32d Gds RC	N 51.125	E 36.366	1
19430717	33d Gds RC	N 51.092	E 36.643	1
19430717	40th Army	N 50.969	E 35.597	1
19430717	47th RC	N 50.832	E 35.510	1
19430717	52d RC	N 50.876	E 35.858	1
19430717	5th Gds Army	N 51.205	E 36.708	1

Table L-2. Daily Locations of Soviet Units in the KDB
(page 17 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430717	69th Army	N 50.814	E 37.189	1
19430717	Voronezh Front	N 51.236	E 36.689	1
19430717	3rd Mech Corps	N 51.085	E 36.248	11
19430717	5th Gds MC	N 50.896	E 36.833	7
19430717	100th RD	N 50.715	E 35.741	8
19430717	107th RD	N 50.744	E 36.944	6
19430717	111th RD	N 50.506	E 36.806	7
19430717	13th Gds RD	N 51.022	E 36.398	6
19430717	15th Gds RD	N 50.589	E 36.828	7
19430717	161st RD	N 50.752	E 35.947	5
19430717	183rd RD	N 50.966	E 36.700	5
19430717	184th RD	N 50.927	E 36.130	5
19430717	204th RD	N 50.994	E 36.250	5
19430717	206th RD	N 50.716	E 35.551	9
19430717	213th RD	N 50.416	E 36.773	18
19430717	219th RD	N 50.961	E 36.197	3
19430717	237th RD	N 50.755	E 35.323	8
19430717	270th RD	N 50.526	E 36.779	5
19430717	305th RD	N 50.835	E 36.975	7
19430717	309th RD	N 51.025	E 36.309	5
19430717	36th Gds RD	N 50.377	E 36.834	17
19430717	375th RD	N 50.950	E 36.770	5
19430717	42nd Gds RD	N 51.004	E 36.642	8
19430717	51st Gds RD	N 51.021	E 36.235	6
19430717	52nd Gds RD	N 51.048	E 36.669	6
19430717	66th Gds RD	N 51.090	E 36.387	4
19430717	67th Gds RD	N 51.004	E 36.148	6
19430717	71st Gds RD	N 50.854	E 36.110	7
19430717	72nd Gds RD	N 50.478	E 36.800	7
19430717	73rd Gds RD	N 50.536	E 36.816	7
19430717	78th Gds RD	N 50.545	E 36.895	11
19430717	81st Gds RD	N 50.998	E 36.863	2
19430717	89th Gds RD	N 50.919	E 36.838	12
19430717	90th Gds RD	N 50.937	E 36.090	6
19430717	92nd Gds RD	N 50.880	E 36.891	4
19430717	93rd Gds RD	N 50.913	E 36.863	5
19430717	94th Gds RD	N 50.690	E 36.877	6
19430717	95th Gds RD	N 51.052	E 36.579	4
19430717	97th Gds RD	N 51.047	E 36.467	5
19430717	10th TC	N 50.972	E 36.170	4
19430717	18th TC	N 51.134	E 36.772	5
19430717	29th TC	N 50.991	E 36.664	8
19430717	2nd Gds TC	N 50.935	E 36.778	5
19430717	2nd TC	N 50.966	E 36.667	4
19430717	31st TC	N 51.107	E 36.384	7
19430717	5th Gds TC	N 50.936	E 36.093	4

Table L-2. Daily Locations of Soviet Units in the KDB
(page 18 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430717	6th TC	N 51.035	E 36.165	7
19430717	27th Gds TkBde	N 50.495	E 36.812	6
19430718	6th Gds AbnD	N 51.118	E 36.617	1
19430718	9th Gds AbnD	N 51.018	E 36.639	6
19430718	Trufanovs Detachment	N 50.892	E 36.945	4
19430718	22d Gds RC	N 51.067	E 36.036	1
19430718	32d Gds RC	N 51.125	E 36.366	1
19430718	33d Gds RC	N 51.092	E 36.643	1
19430718	40th Army	N 50.969	E 35.597	1
19430718	47th RC	N 50.832	E 35.510	1
19430718	52d RC	N 50.876	E 35.858	1
19430718	5th Gds Army	N 51.205	E 36.708	1
19430718	69th Army	N 50.814	E 37.189	1
19430718	Voronezh Front	N 51.236	E 36.689	1
19430718	3rd Mech Corps	N 51.025	E 36.115	6
19430718	5th Gds MC	N 50.896	E 36.833	7
19430718	100th RD	N 50.715	E 35.741	8
19430718	107th RD	N 50.744	E 36.944	6
19430718	111th RD	N 50.506	E 36.806	7
19430718	13th Gds RD	N 51.024	E 36.401	7
19430718	15th Gds RD	N 50.589	E 36.828	7
19430718	161st RD	N 50.759	E 35.981	4
19430718	183rd RD	N 50.966	E 36.700	5
19430718	184th RD	N 50.889	E 36.138	4
19430718	204th RD	N 50.994	E 36.250	5
19430718	206th RD	N 50.714	E 35.567	10
19430718	213th RD	N 50.416	E 36.773	18
19430718	219th RD	N 50.961	E 36.197	3
19430718	237th RD	N 50.755	E 35.323	8
19430718	270th RD	N 50.526	E 36.779	5
19430718	305th RD	N 50.835	E 36.975	7
19430718	309th RD	N 51.025	E 36.309	5
19430718	36th Gds RD	N 50.377	E 36.834	16
19430718	375th RD	N 50.948	E 36.783	4
19430718	42nd Gds RD	N 50.972	E 36.662	4
19430718	51st Gds RD	N 51.021	E 36.235	6
19430718	52nd Gds RD	N 51.048	E 36.669	6
19430718	66th Gds RD	N 51.090	E 36.387	4
19430718	67th Gds RD	N 51.004	E 36.148	6
19430718	71st Gds RD	N 50.854	E 36.110	7
19430718	72nd Gds RD	N 50.478	E 36.800	7
19430718	73rd Gds RD	N 50.536	E 36.816	7
19430718	78th Gds RD	N 50.545	E 36.895	11
19430718	81st Gds RD	N 50.998	E 36.863	2
19430718	89th Gds RD	N 50.920	E 36.838	12

Table L-2. Daily Locations of Soviet Units in the KDB
(page 19 of 19 pages)

Date	Unit Name	Deg Lat	Deg Long	Nr Pts
19430718	90th Gds RD	N 50.945	E 36.095	6
19430718	92nd Gds RD	N 50.880	E 36.891	4
19430718	93rd Gds RD	N 50.913	E 36.863	5
19430718	94th Gds RD	N 50.689	E 36.885	8
19430718	95th Gds RD	N 51.031	E 36.548	6
19430718	97th Gds RD	N 51.037	E 36.483	5
19430718	10th TC	N 50.972	E 36.170	4
19430718	18th TC	N 50.978	E 36.582	3
19430718	29th TC	N 50.976	E 36.605	6
19430718	2nd Gds TC	N 50.943	E 36.719	3
19430718	2nd TC	N 50.969	E 36.621	5
19430718	31st TC	N 51.089	E 36.270	3
19430718	5th Gds TC	N 50.938	E 36.093	4
19430718	6th TC	N 50.853	E 36.126	3
19430718	27th Gds Tkbde	N 50.495	E 36.812	6

GLOSSARY

1. ABBREVIATIONS, ACRONYMS, AND SHORT TERMS

AA	antiaircraft
ABND	abandoned
AbnD	airborne division
AC	aircraft; armored car
ammo	ammunition
APC	armored personnel carrier
ARCAS	Ardennes Campaign Simulation (study)
ARTY	artillery
AT	antitank
ATH	heavy antitank (weapon)
ATL	light antitank (weapon)
ATR	antitank rifle
CAA	US Army Concepts Analysis Agency
CAS	casualties
CBT	combat
CCAS	combat casualties
CD ROM	compact disc with read-only memory
CMIA	captured, missing in action
det	detachment
DMG	damaged
DNBI	disease and nonbattle injuries

DRSS	Das Reich SS Panzer Grenadier Division
DST	destroyed
EEA	essential element(s) of analysis
EVAC	evacuation
FEBA	forward edge of the battle area
FER	fractional exchange ratio
FLAME/MG	flamethrower/machinegun (weapons)
Gds	Guards
GDPZ	Das Reich and Grossdeutschland
GE	German
HMG	heavy machinegun
How	howitzer
HQ	headquarters
ID	identifier; infantry division
IG	infantry gun
KCMIA	killed, captured, missing in action
KDB	Kursk Data Base
KIA	killed in action
km	kilometer(s)
KOSAVE	Kursk Operation Simulation Analysis and Validation Exercise (study)
LSSAH	SS Division Leibstandarte Adolph Hitler Panzer Grenadier Division
LHT	light halftrack
LT	light

MC	mechanized corps
Mech	mechanized
MHT	medium halftrack
MG	machinegun
mm	millimeter
MMG	medium machine gun
M-T-M	Model-Test-Model (paradigm)
MTR	mortar
OH	onhand
PREP	prepared
Prov	Provisional
Pz	Panzer
PzC	Panzer corps
PzD	Panzer division
PzGrD	Panzer Grenadier division
RC	rifle corps
RD	rifle division
RECD	received
RECON	reconnaissance
Ref	reference
RKT	rocket(s)
RKTL	rocket launcher(s)
RPL	replacements

RTN	returns
SOV	Soviet
SP	self-propelled
SPG	self-propelled gun
Spt	support
SQ	square
SV	Soviet
Stu	Sturmgeschutz (model)
T/AT	tank/antitank
TC	tank corps
TDI	The Dupuy Institute
TEM	Terrain Evaluation Module
TO&E	table(s) of organization and equipment
TOT	total
TSS	Totenkopf SS Panzer Grenadier Division
US	United States
UTM	universal transverse mercator
w	wheels
WIA	wounded in action
WPN	weapon
WWII	World War II

2. DEFINITIONS

combat casualties

combat casualties = KIA + CMIA + WIA

daily average combat casualty rate

The daily average combat casualty rate of a force is the arithmetic average of the daily unit casualty rates over all line units engaged in combat on that day. A line unit is defined as engaged in combat on a day if it sustains more than one combat casualty on that day.

daily unit combat casualty rate

A unit's daily combat casualty rate is the number of combat casualties incurred per 1,000 onhand (at start of day) men in that unit on that day.

force ratio

For a Red military force opposing a Blue force, the force ratio favoring side Red is defined as: $[\text{total onhand Red items}] / [\text{total onhand Blue items}]$ where the items are personnel or weapon systems in the force.

fractional exchange ratio

For a Red military force opposing a Blue force, the fractional exchange ratio favoring side Blue in a time period I is defined as

$$(\Delta \text{LOSSES}_{\text{RED}(i)} / \Delta \text{LOSSES}_{\text{BLUE}(i)}) / [\text{Force Ratio}_{(i)}]$$

where $\Delta \text{LOSSES}_{\text{RED}(i)}$ = total losses of specified Red items in period i ,

$\Delta \text{LOSSES}_{\text{BLUE}(i)}$ = total losses of specified Blue items during period i ,

and $\text{Force Ratio}_{(i)}$ = force ratio favoring Red at start of period i .

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